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ORIGINAL COMMUNICATIONS.

ART. I.—*Syphilis of the Nose and Larynx.* By CLINTON WAGNER, M.D., of New York, Physician to the Metropolitan Throat Hospital, Fellow of the New York Academy of Medicine, Member of the New York County Medical Society, of the New York Neurological, etc., etc.

Secondary syphilis of the nose begins as an ordinary catarrh or cold in the head, accompanied by a profuse discharge of a thin, watery, acrid character, which is increased by changes of temperature; or it may be scanty, and of a thick, yellowish appearance. We may find pain extending to the frontal, maxillary, and sphenoid sinuses, a sense of stuffiness, partial or complete loss of smell, difficulty in breathing through one or both meati, alteration of voice, but an absence of the attacks of sneezing, which generally accompany ordinary catarrh.

An anterior rhinoscopic examination reveals a dusky red color and turgidity of the Schneiderian mucous membrane, with superficial ulcerations on the alæ, septum, and middle turbinated bones. The posterior nares will present in the mirror a swollen, hypertrophied condition of the mucous membrane covering the turbinated bones, especially the

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middle and inferior, and also the inferior and posterior border of the septum nasi. The same dusky hue and turgidity will be observed extending over the posterior surface of the velum, the vault of the pharynx, the orifices of the Eustachian tubes and fossæ of Rosenmuller, producing, in some cases, occlusion of the orifices of the tubes, and, consequently, deafness.

Moreover, we frequently find erosions or superficial ulcerations of the same character as the mucous patch occurring in the localities just enumerated.

In proportion to the thickening of the mucous membrane covering the septum nasi and turbinated bones, will the narrowing of the meati depend. Frequently the passing of a sound of the smallest calibre is rendered impossible.

The condition thus described may occur simultaneously with the early secondary skin affections, or subsequently, and it is a sure precursor of the tertiary in the form of ozæna, unless arrested by proper treatment.

Diagnosis.—With other symptoms of syphilis existing, or a clear history of the disease in the individual, the diagnosis is easily made; but without these there is nothing that will enable us to pronounce upon the true character of any given case. To explain further, the discharge, thickened mucous membrane, superficial ulceration, pain, etc., are precisely what you find in ordinary catarrh or struma, and in such cases, if proper local treatment had been previously tried for a reasonable length of time without good result, I would then put the patient under specific treatment. I have done this in a large number of cases in which the history of syphilis was extremely doubtful, and the good results therefrom convinced me that I have not erred; and I have no hesitation in asserting that, in my opinion, very many of those obstinate cases of so-called nasal and naso pharyngeal catarrh are of specific origin.

Hutchinson mentions syphilitic coryza as one of the forms

of hereditary syphilis, but says it disappears within the first year.

Durham, Hill, and other writers on syphilis, refer to it. Hill thinks it develops into ozæna about the tenth or eleventh year of life.

Ozæna Syphilitica is that form of tertiary syphilis characterized by ulceration of the mucous membrane of the nares, with or without necrosis of the bones and cartilages, and accompanied by a fœtid discharge and offensive breath.

Ulcerations of the nasal fossæ may be classified under two heads—non-specific and specific. The former include: 1st. Those of strumous origin. 2d. What are termed by Follin* "professional ulcers," occurring in those whose vocations compel them to inhale the noxious vapors arising from mercury, arsenic, and bi-chromate of potassa, and which, by constantly irritating the mucous membrane, bring about an ozænic condition. 3d. Certain diseases, such as typhoid fever, glanders, diphtheria, scarlet fever, and other infectious diseases. Indolent sub-mucous abscesses are formed, which, burrowing under the fibrous mucous membrane, attack the subjacent bone; seqùestra result, which keep up an ulceration of the soft parts until eliminated or removed by surgical operation.

The scrofulous variety generally follows a chronic coryza, in which the pituitary membrane becomes hypertrophied and almost fungous in its character. The acrid secretions, having no free exit from the narrowing or occlusion of the meati, produce erosion, and finally ulceration of the mucous membrane, which may extend to the bone, which in scrofula rarely becomes primarily affected.

In the ozæna of syphilis, the periosteum or fibrous mucous membrane is generally primarily attacked, the inflammation extending to the bones, although it may be simply an exten-

* "Traité Elémentaire de Pathologie Externa." By E. Follin et Simon Duplay.

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sion of the superficial ulcerations of the secondary form I have already described.

Trousseau says that the coryza always precedes the ozæna in children. Hill and other writers hold the same view. Hutchinson thinks the coryza disappears often in hereditary syphilis after the first year. In my opinion, the coryza is always present, but in a form so modified as not to attract the attention of those having charge of the child, and later in life the ozænic condition is insidiously established.

Follin mentions another variety, which he describes as occurring in individuals who show no indication of syphilis, in whom there is a nasal ulcer resisting all treatment, and which disappears only to reappear after a short time.

Trousseau, and before him Boyer, classed them with the herpetic diathesis, and the ulcers as a variety of psoriasis.

D'Azembuja, in a recent article on syphilis in the Gaz. de Hopital, describes an ozæna of a herpetic nature.

Desaiverve, in support of this theory, relates the case of a man who suffered for a long time with an inveterate psoriasis, and was constantly throwing off from his nostrils albuminous plugs moulded upon the turbinated bones, the mucous membrane being ulcerated at that point. He says the cases have this peculiarity, that there is no osseous lesion, differing in this respect from scrofula or syphilis.

I have met with several cases in my practice in which the "albuminous plugs" of Desaiverve were thrown off. One case I might mention: Mr. A., aged thirty-seven, merchant; primary syphilis fifteen years before consulting me; the nasal trouble had existed several years, and resisted all treatment; the mucous membrane covering the turbinated bones, as seen in the mirror, was extensively ulcerated; no osseous lesion; the plugs were frequently thrown off; no psoriasis in this case, but had it previous to consulting me. The case finally yielded to specific treatment, and was discharged cured. I am inclined to regard the psoriasis in the cases referred to

by Desaiverve as of specific origin, and the ozæna consequently syphilitic.

Pathology.—Of the pathological lesions found in syphilitic ozæna, but little is known on account of the infrequency with which examinations of the parts are undertaken. Follin, who has made numerous observations, gives the following as the result:

"Ordinarily, we find the pituitary membrane much reddened, eroded, or ulcerated, and sometimes granular, like the conjunctiva in certain forms of blepharitis, while the adjacent mucous membrane may be healthy but somewhat redder than usual. In grave forms, ulcerations, with deep loss of substance, most frequently seated at the junction of the cartilage and perpendicular plate of the ethmoid bone, although they may be found elsewhere.

"The same character of ulcerations exist on the posterior parts of the nasal fossæ, and which during life can only be demonstrated with the aid of the rhinoscope. Wherever the seat of the ulceration may be, the neighboring mucous membrane is thickened, puffed, and fungous, bleeds easily, and we frequently find it raised from the burrowing of pus, which leaves bare the subjacent bone. We do not always find the clear, cut, raised edges which we are accustomed to see in other syphilitic ulceration; on the contrary, the edges are often flattened, ragged, and fungous, the surface is covered with a grayish detritus, or a brown, fœtid crust, above and around which collects a purosanguinolent secretion; and in these cases there always exists at the point of ulceration advanced osseous alterations, the bone carious, softened, or necrosed.

"In some cases we find in the neighborhood of the ulcer which has exposed the bone a series of sinuses and fistulous passages, which detach the mucous membrane and perforate it again at a more or less distant point. Finally, in extreme cases of syphilis, we find total destruction of the

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bones of the nose, ethmoid and vomer, and the whole nose may disappear in consequence. In this variety there is sometimes extension of the suppurative process to the meninges, thrombus of the ophthalmic vein, and consecutive coagulation of the sinuses of the dura mater."

Treatment.—For the secondary form, mercurials internally, followed by a course of potass. iodid., which should be continued for weeks or months.

We have in this affection, as in chronic nasal catarrh, strictures, caused by thickening of the mucous membrane covering the turbinated bones and septum; it may be very slight, at one or two points only, or the entire passage may be almost entirely excluded, preventing the escape of the acrid secretion, and causing ulceration.

For several years past, in the treatment of these cases, I have employed dilatation by means of metallic sounds, bent at the angle of the Eustachian catheter. My plan is to begin with a very small instrument, and if I succeed in getting it through the passage to permit it to remain for several minutes. This operation I repeat daily, gradually increasing the size of the sound until one corresponding to a number eight urethral catheter can be passed without pain or difficulty. The excessive hyperæsthesia which is always present at first is overcome after a few days' treatment.

After passing the sounds I use immediately a weak solution of carbolic acid in the form of spray, with compressed air from one of Darrow's "Air Pumps and Receiver," and Sass' tubes, after which I apply the following thoroughly to the thickened mucous membrane by means of a piece of fine cotton wool, wrapped around the end of a small silver probe:

℞. Iodini, grs. iii.
Potassii iodidi, grs. vi.
Thymol. glycerolis, gtt. lx.
Glycerinæ, ʒi. M.

For making applications to the posterior nares, I use daily in hospital and private practice an instrument devised by me several years ago. It consists of a small, soft, camel's hair brush screwed on a rod, the extremity of which is bent at an angle of about 45°. The rod is inserted into a handle, as represented in the following cut.

The advantage this simple instrument possesses over any other I have seen used, is, that it can be introduced behind the velum without coming into contact with the posterior wall of the pharynx, by which retching, gagging, and nausea are avoided. By means of it the solution can be thoroughly applied to the turbinated bones, septum, and the spaces between the septum and bones. The posterior surface of the velum can also be touched, as well as the orifices of the Eustachian tubes.

In addition to the above treatment, the patient should make use of the nasal douche once or twice daily.

Syphilitic Ozæna.—Potass. iodid. internally; also tonics, such as iron, quinine, with generous diet.

The local treatment should aim to remove all sources of irritation, such as dead bone and hardened crusts of dried mucous, the thorough and frequent cleaning of the parts by means of the nasal douche, with solutions of carbolic acid, clorinated soda or permanganate of potassa; to the ulcers, applications of nitrate of silver fused upon an aluminium rod, or a strong solution of sulphate of copper. I instruct my patients to use the douche at least twice in the twenty-four hours, and frequently dur-

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ing the day to snuffle through the nostrils to the mouth a weak solution of carbolic acid or salt and water.

By means of the spray of compressed air with sufficient pressure, the viscid mucous and hardened crusts which lodge in the meati and cling to the turbinated bones, vault of pharynx, and posterior surface of the soft palate, can be removed, and the parts thoroughly cleansed for medicated applications.

Dead bone should be removed as soon as practicable. If it can not be seized and withdrawn by forceps, an operation may be resorted to which has lately been performed with marked success in a few cases. It consists in separating the upper lip and nostrils from their attachment to the upper jaws by incisions through the mucous membrane of the mouth and dividing the cartilages. An excellent view of the nares is thus obtained, with ample space for the introduction of instruments.

SECONDARY SIPHILIS OF THE LARYNX.

Secondary syphilis of the larynx generally appears within a few weeks or months after the primary symptoms, simultaneously with the early skin and mouth affections, or later; it never precedes them.

The subjective symptoms do not differ from those of ordinary laryngeal catarrh. There is frequent desire to hawk or clear the throat of the accumulated mucous, impairment of voice, varying from slight hoarseness to complete aphonia, sometimes a short hacking cough, and an absence of pain unless the pharynx is involved.

A laryngoscopic examination will reveal a dark, dusky red appearance of the mucous membrane lining the larynx, the vocal cords congested or ecchymosed, or the mucous membrane covering them may be thickened or infiltrated, and sometimes in the more chronic cases resembling the roughened, granular appearance of chronic conjunctivitis.

We will occasionally observe also the mucous patch so common in syphilis of the mouth. It is found upon the epiglottis, the ventricular bands, true cords, and arytenoids. By some authorities it is thought to be an extension of the disease from the mouth. Others deny that it is ever seen in the larynx. In the large majority of cases the mucous patch will be found to coëxist with others in the pharynx, or on the tonsils, tongue, or soft palate.

The following brief notes of a few of the cases that have been under my treatment are typical of secondary syphilis of the larynx:

Case 1. Mr. J. Lawyer, aged 22. Consulted me for hoarseness. Had indurated chancre six months ago, followed by skin trouble. At the time of his first visit to me had mucous patches upon the inside of cheeks, on the tongue, on the inter-arytenoid fold and left ventricular bands, the vocal cords reddened and thickened. Voice very hoarse.

Case 2. J. M. Merchant, aged 37. Primary sore eleven months ago, followed by skin trouble. Has patches upon soft palate and under surface of tongue, and ventricular bands; has also enlargement of post cervical glands with alopecia.

Case 3. S. Patient at the Metropolitan Throat Hospital, aged 26. Primary eight weeks ago. Patches on tongue and inside surface of cheeks and right vocal cord, both vocal cords very much reddened and thickened.

TERTIARY SYPHILIS OF THE LARYNX.

Tertiary syphilis of the larynx has long been known and recognized, but before the introduction of the laryngoscope into general practice was regarded as a disease difficult to manage and frequently fatal, and although even now we are not able to overcome the ravages of the disease in all the cases that present themselves to us, we can at least relieve them of much suffering, and ward off the dangers of sudden death by timely operative interference.

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It is characterized by extensive and deep ulcerations, appearing in the large majority of cases in the following order: 1st. Upon the free edge and posterior surface of the epiglottis, extending downwards on one side or covering the entire surface to the anterior commissure. 2d. The next in order of frequency are the vocal cords and ventricular bands; then the arytenoid cartilages and inter-arytenoid fold. While this order of attack is most frequently observed, cases do occur in which other parts are first invaded.

The ulcerations may coëxist with others in the pharynx and fauces, or they may appear before or after—most frequently the latter—or they may follow immediately the superficial ulcerations of the secondary form, in which case the sub-mucous cellular tissue becomes invaded, thence to the perichondrium, from which necrosis of the cartilages will ensue; or they may follow the softening of a gummy tumor; or they may originate in the fibrous covering of the cartilages, which is analagous to the periostium of bones, and extends outwards through the overlying soft parts.

The ulcers are deep, cupped, edges raised, and covered by a grayish detritus, sometimes mixed with blood. The destruction of tissue is extremely rapid in its progress, unless arrested by appropriate treatment.

Diagnosis.—To establish a differential diagnosis between tuberculosis syphilis and cancer of the larynx is often very difficult, particularly in hospital practice, where the patients either willfully or ignorantly fail to furnish us with a history of syphilis.

Cancer of the larynx is an extremely rare affection. The cervical lymphatics are engorged, the pain is constant, and of a more acute or excruciating character than in syphilis or tuberculosis. The cartilages are attacked at a comparatively early stage, and the ulceration is more likely to be unilateral, with extensive thickening of the neighboring parts.

The majority of writers on the subject assert that without

the history of syphilis or the evidence of tuberculosis of the lungs we can not establish a diagnosis between syphilis and tuberculosis.

Türck says as a rule these ulcers have nothing characteristic.*

Mackenzie gives the "solid, pyriform swelling of the ary-epiglottic folds and the turban-like appearance of the epiglottis as characteristic of phthisis, and says in this affection thickening always precedes ulceration. In syphilis the extensive rapid ulceration is the distinctive manifestation."

Prosser James states that "the color of the mucous membrane of the throat in phthisis and syphilis is as suggestive as is that of the skin in the same affections. In the one the membrane is pale and anemic; in the other, dusky, dark-red, and in some cases mottled."†

Cohen thinks there is nothing "absolutely characteristic in the appearance of the syphilitic larynx, whether of the simple erythematous form or ulcerative variety."‡

Voltolini, on the other hand, claims that in all cases he can, without difficulty, establish a diagnosis between syphilis and tuberculosis of the larynx. He says: "In syphilis the ulcers resemble a dead body that has been nibbled by rats or mice. In tuberculosis the swollen, pale, almost transparent appearance of the arytenoid cartilages, and the collection of a large quantity of muco-purulent secretion in the inter-arytenoid space, he considers always diagnostic of phthisis, even if the lungs present no evidence of deposit. In syphilis there is an absence of this swollen condition and collection of secretion, and in its stead we find a greater destruction of tissue, and near the ulcers the parts degenerate into callosities, the time required for which would carry a case of tuberculosis to the grave."‖

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* Krankheiten des Kehlkopfes. † Laryngoscopy. Prosser James. ‡ Diseases of the Throat. ‖ "Die Anwendung der Galvanokaustik im Innern des Kehlkopfes und Schlundkopfes."

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I offer the following as the result of my own observations: In tertiary syphilis the epiglottis is first attacked. Second, the vocal cords and ventricular bands; the ulcers are deeper and more defined than those of tuberculosis; there is generally perichondritis and an absence of the thickening of the aryepiglottic folds, which is always found in tuberculosis, and which I have never failed to observe. The mucous membrane in syphilis is dusky red; in tuberculosis generally pale and anemic. Finally, in ulcerative tubercular laryngitis I think deposit in the lungs will *always* be found.

Condylomata are frequently seen in syphilis; they are soft, white, and generally pointed, occurring on the interarytenoid fold, or just anterior to the arytenoids, or on the ventricular bands or vocal cords.

The following case, prepared for me by my assistant, Dr. C. M. Desvernine, is illustrative of the difficulty we sometimes encounter in establishing the differential diagnosis between tertiary syphilis and tuberculosis of the larynx:

P. G. B., aged thirty; married; occupation, clerk; applied for treatment at the Metropolitan Throat Hospital, October 13, 1875; states that his throat became sore several months ago; has dysphagia pain, inability to swallow solid food. A laryngoscopic examination showed the epiglottis reddened and very much swollen, and presenting the turban-like appearance so characteristic of the latter stages of laryngeal phthisis.

There was no history of syphilis in this case, but he stated that about four years ago he had had a severe attack of pneumonia. An examination revealed slight consolidation of the apices of both lungs. He was put upon cod-liver oil, and left after four days' treatment. No improvement.

Two months later he returned, the condition of the throat unimproved. After remaining a few days he left, with the intention of going to the South. He did not leave the city, however, but became worse, and was confined to his resi-

dence for two months. On the 23d of February he returned to the hospital. At this time he was very much emaciated from inability to take proper food, scarcely able to walk, great dyspnœa, with occasional attacks of spasm of the glottis, the epiglottis greatly swollen, œdematous, and slightly ulcerated on the right side. This ulceration increased, and the destruction of tissue was very rapid in its progress, which, together with an ulcer on the posterior pillar of the left side of the palate, unusual in phthisis, determined me to put the patient under treatment for syphilis. I began with ten grains potass. iodid. three times daily, and rapidly increased it to twenty grains five times daily. Within a week the destructive ulceration was under complete control, the swollen condition of the epiglottis had disappeared, and a satisfactory view of the parts below could be obtained. There was an absence of the thickening characteristic of tuberculosis, and, with the exception of slight ulceration of the right ary-epiglottic fold and right arytenoid, the larynx presented the appearance of health.

The patient has quite recovered in flesh and strength, and returned to duty. The lung complication, the absence of a history of syphilis, and the swollen, thickened, œdematous, and turban-like appearance of the epiglottis, misled me in my diagnosis of this case at first. The rapid progress of the ulceration, the ulcer in the mouth, and the disproportion between the laryngeal and the lung trouble, induced me to adopt the treatment for syphilis. As a rule, tubercular ulceration of the larynx does not appear until the second or third stage of pulmonary phthisis.

Sequelæ.—Stenosis of trachea or larynx, from cicatricial contraction; membranoid occlusion of larynx, formed of cicatricial tissue from ulceration; aphonia, from complete or partial destruction of the vocal cords; dysphonia, from an altered condition of the vocal cords, which is a very frequent sequel.

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I refer to the thickened, roughened, uneven, appearance of the mucous membrane covering the cords. Approximation may be perfect, but hoarseness will result from inability to perform the finer vibrations.

Frequency.—At the Hospital for Diseases of the Throat, London, it is estimated that from forty to fifty per cent. of all cases that apply for treatment have syphilis. I have not seen a report of the proportion of laryngeal cases to those of the pharynx and nose.

At Guy's, Mr. Durham estimates that forty per cent. are syphilitic. Schrotter, in 3,700 cases of throat affections treated during three years at the General Hospital at Vienna, reports 120 of laryngeal syphilis—about one in every 35.

Of 55 cases of constitutional syphilis examined for me by Dr. Lowman, late of Charity Hospital, Blackwell's Island, 32 had the tertiary form, and 23 the secondary. Of the 32 cases of tertiary, 20 had laryngeal syphilis; and in the 23 cases of secondary, 19 showed manifestations of the disease in the larynx.

At the Metropolitan Throat Hospital, in 1,000 cases treated, 74 were syphilitic, of which 27 were laryngeal, 21 nasal, and 26 pharyngeal.

Treatment.— For the secondary form, mercurials, followed by potass. iodid.. Locally, during the early stages, applications with the brush of solutions of zinci sulph., ʒi to ʒi; ferri per chlor., ʒi to ʒi, or argent. nit., ʒi to ʒi.

For the thickening of the vocal cords seen in the more chronic cases, zinci chlor., ʒi to ʒi; cupri sulph., ʒss to ʒi; or the following:

Iodini, grs. iii.
Potass. iodid., grs. vi.
Glycerinæ, ʒi. M.

Vapor inhalations of creasote and the ol. folii pini sylves. will be found to act pleasantly as a soothing sedative astringent.

Abstinence from alcoholic drinks and tobacco during treatment should be insisted upon.

In the tertiary form, potass. iodid. should be freely given in large doses. If the ulceration depends upon the breaking down of a gummatous tumor, or if the tumor exists and has not began to soften, and is causing distressing dyspnœa from stenosis of the larynx, then you must rely upon potass. iodid. as your sheet-anchor. Valuable time is lost, and the patient's life is endangered, by giving ordinary doses of the drug.

In a case recently under my treatment of gummatous tumor on the left ventricular band, almost completely closing the glottis, and causing extreme dyspnœa, I began with grs. xxx three times daily, and rapidly increased the quantity until I reached ʒvi in the twenty-four hours. The tumor disappeared within a few days, and the man escaped tracheotomy, which at one time I thought inevitable.

Locally, insufflations of iodoform and applications of argent nit. and cupri sulph., and sprays of acid carbolic, are very beneficial.

51 West Thirty-fifth street.

ART. II.—*Chronic Non-Malignant Ulcers.* Read before the Pickaway County Medical Society. By S. D. TURNEY, of Circleville, Ohio, Adjunt Prof. of Obstetrics, etc., Starling Medical College, Columbus, Ohio.

This subject may seem to some of you a small matter to engage the attention of a body of mature physicians, but it is by no means without importance. All over the country are men and women afflicted with these always annoying, and sometimes positively painful sores, who, having tried the infallible ointments and poultices of sympathizing neighbors, having limped from doctor to quack and from quack to doctor, having deluged themselves with the infallible remedies so kindly put within the reach of the afflicted

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by our numerous druggists, settle down to the maxim "that what can't be cured must be endured," and as contentedly as they can, limp through the balance of their existence.

Nor is it only as a local disease—a matter of pain and annoyance—that we must look upon this subject. There is a popular idea that these sores are preservative of the general health, that they are outlets for something in the blood—some noxious humor—which, if not drained off, would spend its poisonous force on vital organs; and I fear that even some physicians, too easily adopting the traditions of our medical forefathers, share in this loose opinion, and consider the chronic ulcer, which by long residence has gained its right of citizenship, as a kind of supplementary emunctory. But in what sense can it be an emunctory? There is in its ichor neither urea, uric acid, creatine, or any of the constituents of healthy urine. There is neither bile, stercorine, or carbonic acid. There are none of the products of retrograde metamorphasis, nothing but molecular degenerations of the chemical results of the reactions of inert matter. It is but a destructive waste of organic life, and is only an increased burden on the already over-taxed energies of a lessened vitality. It is true that chronic ulcers do not directly cause death, but in addition to the mental, moral, and general nervous irritability which they produce, the constant drainage of nutrient elements from the system, and the continual absorption of the vitiated products of decomposition, must injure the general health and indirectly shorten life. There is a growing belief among pathologists in local causes of general infection. The absorption of putrid pus is a cause of pyæmia. Excessive formation of the same results in amyloid degeneration. Tuberculosis is by many regarded as the effect of local dépôts of cheesy matters or inflamatory degeneration of the lymphatic glands; and there is reason to believe that absorption from these sores hastens the progress of atheromatous and fatty degenerations of the various atro-

phies and changes which pertain to advanced life. Of this I am certain, that within my observation where cure has been effected by local means alone, without any restorative constitutional treatment, the general health has been undoubtedly improved, and the patient, to a certain extent, rejuvenated.

In another point of view the subject is not unworthy of discussion. There is nothing insignificant in medicine. There are no isolated phenomena. Under the slightest manifestation of life or disease lie the broad principles which make unities of life and disease. As the same law which governed the fall of the apple keeps the earth forever whirling in its orbit, so in a simple pimple are the fundamental laws which govern all inflammation; and he who thoroughly understands all that goes to the formation, progress, and final cure of an ordinary boil, has mastered the whole theory of inflammation, and is ready to carry a perfected knowledge to the cure of its larger manifestations in more vital organs.

So, whether we look upon it in regard to frequency, to difficulty of cure, to effect on the general health, or to the broad pathological lessons which it teaches, the subject is well worthy of our consideration.

An ulcer is but a sore: a chronic ulcer an old sore. This by no means scientific definition will convey to your minds as definite an idea of the subject as a more elaborate description. Definition in our science of medicine is not always possible. Any language which would include all the forms and phases of ulceration, would transcend the narrow compass of definition and expand to an exhaustive treatise. In its simplest form, an ulcer is a healing sore—an open wound, whether from violence or disease, gradually filling up by granulation, cicatrization, and final construction of new tissue. But all the forces in even a healing sore do not tend to recovery. There is death in this life. Pus carries away a portion of the plastic material, and the products of tissue

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destruction are found in the serum which exudes from it. There is decay going on with repair, a tearing down with this building up; and it is only in that the repair exceeds the destruction that the sore is eventually healed. It is a war of forces. If the reconstituting forces are in the ascendency, the processes go on to recovery; if the destructive forces, there is extension of the ulceration; if there is equilibrium, there remains the stationary sore—the intractable chronic ulcer.

There are many conditions of the system which give chronicity to the ulcer. In general terms, whatever lowers the vitality of a part, lessens its power of vital resistance, and is a predisposing cause of ulceration. The continuance of such condition is a cause of chronicity. Many illustrations of this generalization will occur to you: The want of reparative power in the impoverished and contaminated blood of chronic alcoholism, the troublesome bed sores, and frequently fatal ulceration of Peyer's patches in imperfectly nourished cases of typhoid fever, the proneness to gangrenous sores in the more pernicious forms of cerebro-spinal meningitis, and the marked tendency of scurvy and diabetes to intractable ulcerations. In all these diseases there are enfeebled action of the heart and a deficient supply of a vitiated and impoverished blood. These are but temporary conditions; the disease subsiding, the sore heals. But there are other causes more persistent in character. There are certain conditions in which the circulation of the blood, either locally or generally, is habitually retarded. The simple retardation of the current of blood through a part, by lessening the supply of nutrient material, is a cause of chronicity.

One of these conditions is age. In the decline of life the heart propels the blood with a feebler beat; the arteries losing their elasticity, become rigid tubes, the toneless veins dilate, and are overburdened with the sluggish current. Advanced age is peculiarly liable to intractable chronic ulcers.

The obstruction to, and the retardation in, the flow of the blood is greatest in the legs—the most remote parts of the body from the heart. They most suffer from its feebler impulse. The force of gravity is also against the onward flow, and the venous walls receiving a fluid robbed of its nutritive qualities, atrophy, lose their tonicity, become varicose, dilate until the thinned valves, no longer resting in apposition, allow the whole weight of the column to fall upon the more dependant part of the body. So it is upon the legs—the peculiar seat of varicosities—we almost always find the typical chronic ulcer.

Another, and a physiological cause of retardation of circulation and varicosities, is pregnancy. The gravid womb by pressure temporarily obstructs the circulation in the veins of the lower extremities. The muscular coats and valves of these veins become so much impaired that, although there is removal of the obstruction, the power of restoration is lost.

Women who have rapidly borne many children are peculiarly liable to chronic ulcers of the legs.

Constipation and obstruction in the portal circulation, although in a milder degree, may also act in this direction.

I believe that all chronic ulcers not dependant on cachexias, such as I have previously mentioned, are due to this stagnation and consequent impoverishment of the blood. There may be accidental causes for the production of the sores, and accidental condition of the system maintaining them, but these causes and conditions passing away, the sores remain from the retardation of the blood.

I have been particular in bringing this view of the pathology of chronic ulcers before you, because on it is based a rational, and what in my hands has proved to be a rapid, easy, and permanent cure.

Taking this broad view, it is unnecessary to weary you with minute details of the various forms and appearances of chronic ulcers. The text-books give you various names to

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suit the differing appearances—the acute, the fungous, the irritable, the indolent, etc. This is very scientific, but I think this complicated classification has a tendency to distract the attention from the underlying phenomena which give unity to all. The different forms which these sores present are probably only due to difference in temperament, or habits of life, or idiosyncrasy, or the location of the sore. They are but accidental variations of one diseased condition.

I shall be equally brief upon the subject of treatment. Tonics and alteratives when the general health is involved, the removal of hepatic obstructions and constipation by appropriate medicine and diet, soothing or stimulating poultices and ointments applied to the ulcer, the application of *continuous* pressure by bandages or adhesive straps, and, above all, rest in bed, or at least in the horizontal position, are advised in the text books, and such treatment is frequently followed by success. But many of these sores are rebellious to this, and even to the more heroic blistering, cauterizing, and incising; or, if healing does take place, they again break out upon the resumption of the ordinary labors and routine of life. With me the ordinary treatment has been slow, tedious, exacting upon patient and physician, and very unsatisfactory in final result. I had long cast about for a better. Over two years ago I was treating one of those intractable ulcers on the leg of a woman of more than sixty years. The sore was of many years standing, situated over the internal malleolus, oval in shape, about two inches in its long diameter, with hard, thickened, everted edges, and a base utterly destitute of healthy granulations. The leg nearly to the knee was covered with a fiery red, sweating, eczema. The veins were turgid and varicose. I had tried the changes on ordinary and extraordinary medication, with no apparent improvement. During this time I had occasion to use Esmorch's anæmic bandage for the removal of a tumor from a leg. In using this I was struck with two things:

first, the complete bloodlessness and dryness of the tissues; and second, the marked hyperæmia which soon followed its removal. Indeed, the frequent occurrence of troublesome parenchymatous hemorrhage after the use of this bandage, is to me the only objection to its surgical employment. These observations led me to the use of the bandage in the case of chronic ulcer I was then treating. I saw that the veins would be not only emptied of their load of impoverished and vitiated blood, but would be refilled with a fresh charge of oxygenated, nutritive blood. I applied the elastic bandage as tightly around the limb as high as the knee, as if I had intended to do a bloodless amputation. I left it on as long as the patient would bear it, say about ten minutes. This was repeated once a day. No other treatment, local or constitutional, was pursued. The patient, a woman of active habits, was allowed to go about her ordinary avocations. In a few days improvement was marked, and the ulcer went steadily to rapid and permanent healing in less than three weeks. So firm is the cicatrix that it has resisted a subsequent attack of acute eczema.

Since then I have used the same method of treatment in eight intractable ulcers of long standing—one in a woman of seventy years, of twenty-five years' continuance. The daily application of the elastic bandage in the manner described; no other treatment, local or constitutional, was given—no confinement to bed or elevation of the member involved. They have all made rapid and permanent cures.

In conclusion, let me briefly recapitulate. Chronic non-specific ulcer is produced by injury or disease acting upon a part where power, vital resistance, and repair is lessened; the cause passing away, the ulcer is perpetuated through the damage done to the blood-vessels and consequent stagnation of blood. The arteries carry less oxygenated, vitalizing blood to the part; there is anæmia. The veins are overloaded with impoverished blood, vitiated from absorption of

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decomposed matter, and unfit for the proper nutrition of the parts. There are toxæmia and spanæmia. The powerful pressure of the elastic bandage unloads the over-burdened veins of this impure fluid, and the subsequent dilitation of the arterials and capillaries admits of a fresh charge of oxygenated, nutritive blood. The sore heals. The curative effect is not transient. The tissues of the veins, supplied with a better nuitrition, recover their lost tonicity and re-assume their natural caliber and functions. The vitality of the parts thus restored, the cure is permanent.

This method of treatment, then, is not the application of sustained pressure by any of the ordinary modes of bandaging. It is an intermittent pressure, causing, firstly, anæmia, and subsequently hyperæmia.

Incidentally I have alluded to the cure of varicose veins. Let me here say the elastic bandage has a yet more extended application. No other means is so prompt in the relief of œdema, or for the removal of indurated thickenings, the result of chronic inflammations.

ART. III.—"*False Waters, or Hydrorrhœa.*" By D. MILLIKIN, M.D., of Hamilton, Ohio.

An error of diagnosis or of judgment may be forgiven the general practitioner in his medical and surgical practice, but not in his obstetrical work. In the lying-in chamber the one thing that is demanded of the accoucheur is infallibility. If the head lingers long at the inferior strait when the medical attendant has predicted a speedy termination of labor, or if a rigid os suddenly becomes soft when a tedious labor has been prognosticated, the parturient woman and her friends are inclined to doubt the intelligence or experience of the poor doctor who has been so rash as to risk his reputation on a statement which is justified by the law of averages, but

does not fit extreme cases. This is very unreasonable. It is difficult to assure one's self beyond a doubt that a woman in labor is actually in labor; and it is dangerous to reputation to make predictions as to when or how delivery will take place. In illustration of the uncertainty of obstetrical practice I will narrate a case, which will also introduce our subject, hydrorrhœa.

At 9 P.M., January 26, 1876, I was called to attend a healthy blonde, of German parentage, in her sixth labor. Her history, which is too long to be narrated here, satisfied me that she was at the end of a pregnancy of nine months. For twenty hours previous to my visit she had suffered cutting pains, which for the last six hours had been quite frequent and sharp. An hour before my arrival "the waters broke." In response to questions, the woman told me that the fluid would have filled a large chamber-vessel brimful, and this was confirmed by other women present. I found the vagina prepared for labor. The uterus was felt to be stretched over the head of a fœtus, and that head was low in the pelvis. Searching backward, the examining digit found an os more than an inch in diameter, with soft margins. Until after some time I did not happen to examine at a time of uterine contraction, but I did not at any time find reason to doubt that the membranes had ruptured, nor that the liquor amnii had been evacuated. Near midnight the woman lost the use of her legs, and found difficulty in urinating. At this time a slight chill announced the completion of the first stage of labor. Finding that the head advanced and retreated freely in the pelvis, I gave fluid extract of ergot about two o'clock, the woman being very weak and impatient. Notwithstanding the administration of ergot in large doses for the next three hours, her pains ceased. After breakfast, on the 27th, I applied mustard-papers over the abdomen, without result. After dinner a very experienced obstetrician saw the case with me. He believed that labor at term had commenced,

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and recommended fifteen grains of sulphate of quinia to be given, in three doses, within an hour and a half, with a hope that this would arouse the uterus. Though the case really seemed a forceps case, we determined to delay operating, unless the woman should become exhausted. Toward night, hoping that she would fall into active labor after a good sleep, I gave her a moderate dose of morphine, and left a mixture containing hydrate of chloral in ten-grain doses. After the first dose she slept. On the 28th, 29th, and 30th she had but a few twinges of pain. On the 31st, being summoned on account of a few sharp pains, I found the head above the brim, and the os too small to admit one finger. That night she regained the use of her legs, and thereafter went about the house attending to her family of five. On February 26th I delivered this woman of a fine, plump, living boy, with the head in the position (left occipito-anterior) which I had diagnosed precisely one month before. Three or four hours before the delivery I found the membranes pouting from the os, and on rupturing them, an hour later, about the ordinary quantity of liquor amnii was evacuated. Not without a suspicion that I was doing a foolish thing, I carefully examined the placenta and membranes to find some explanation of the deluge which had occurred a month before delivery. I found no breach of continuity, except the rent through which the infant had passed, nor no sign of any damage to any part of the membranes. The placenta was retained for some little time, but was not adherent. The woman made a quick recovery.

It will, of course, be understood that I do not mention this case to boast of it; for the plain truth is that there was an error of diagnosis, and we made an attempt to bring about labor with drugs at the eighth month of pregnancy. I have mentioned it rather to call the attention of the profession to our ignorance of the source and cause of these false waters, and to ask for study of the obscure and somewhat rare phenomena of hydrorrhœa.

The great advances in pathological knowledge have been chiefly obtained by study of the commoner and more fatal maladies. An affection like this, comparatively rare and trivial, which does not destroy nor threaten life, is little studied. I do not know of the record of more than one *post mortem* examination of a woman with hydrorrhœa, and autopsies of such patients will never be frequent, since we must wait for a fatal accident or intercurrent malady. For this very reason, because we can hardly in a lifetime of medical practice hope to examine an ovum in the uterus of a woman subject to hydrorrhœa, it is important that we should examine every placenta and the membranes from women so affected. I do not doubt that some appearances would be found which, upon further study, would perhaps give us some scientific knowledge, in place of the scientific guesses which we have, as to the cause and origin of the false waters.

How widely the great obstetric authorities differ on these subjects may be seen at a glance. (1) Nægêle taught that the inner surface of the uterus secreted the fluid of hydrorrhœa, and that it collected between the membranes and the uterus, gradually separating the membranes from the uterus, until it reached the cervix and made an exit. (2) Others modified this theory slightly, asserting that the water transuded through the membranes and accumulated between them and the uterus. (3) Others, again, have maintained that the reservoir for the fluid is an interspace between the amnion and the chorion, and that the false waters escape by the laceration of the latter membrane alone, leaving the amniotic sac entire. (4) Mauriceau and Camper and others have asserted that hydrorrhœa is, in truth, a rupture of all the membranes and an escape of liquor amnii. Rupture, at such a time, does not completely drain the uterus and provoke abortion, because, as is asserted, the laceration is small and is situated at a point remote from the cervix. When a portion of the liquor amnii has escaped, the surface of the

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fœtus, according to this theory, reaches the uterine wall and closes the breach in the membranes.

To this latter doctrine I am inclined to yield my assent. It very well explains the intermittent character of most cases of hydrorrhœa, and also the fact that there is in some cases trickling of water for some months. It is, moreover, a theory supported by observation; for several careful observers, who have examined the placentæ of women subject to hydrorrhœa, report that, besides the large rent in the membranes through which the child passes, they have found other rents, higher up and nearer to the placenta, through which they believe the liquor amnii made its exit for weeks, and even months, before labor.

Little need be said of the diagnosis of hydrorrhœa. The discharge is not usually preceded by uterine contractions and pains. The diagnosis is easy, if it is found that the membranes are water-tight after the discharge, and pout forth from the os at a time of uterine contraction. In the case which I have given above, the flow was preceded by hours of pain, and I could not detect any fluid within the membranes. It was a case to deceive the elect.

The treatment of hydrorrhœa is almost entirely expectant. The patient should rest quietly in bed, lest the uterus should be excited to contraction. If contractions have commenced, the case is one of threatened abortion, and should be so treated.

ART. IV.—*Three Cases of Fracture of the Base of the Skull, with some Remarks upon the Symptoms.* By W. J. CONKLIN, M.D., of Dayton, Ohio, Professor of Physiology in Starling Medical College, Columbus, Ohio. Read before the Montgomery County Medical Society.

"Injuries of the head affecting the brain are difficult of distinction, doubtful in their character, treacherous in their course, and, for the most part, fatal in their results."—GUTHRIE.

The above aphorism, which introduces the distinguished surgeon's classical work on "Injuries of the Head affecting

the Brain," very probably correctly represents the experience of every surgeon with injuries about the base of the skull.

The base of the skull, hidden and protected as it is by surrounding parts, is, to a large extent, removed from the sphere of the *finger*, that great diagnostician, to which we so confidently trust in deciding upon injuries to the vault.

The frequent occurrence and uniform fatality of fractures in this region, together with the unavoidable obscurity of the symptoms, have stimulated surgeons to seek after some special grouping of symptoms by which their presence can be certainly and speedily recognized. That this search has been only partially successful is evident to any one who may have occasion to consult the literature of the subject. Indeed, the ordinary text-books on surgery devote but little space to the discussion.

With the view of calling forth an expression of opinion from the members of this Society on the value of the symptoms usually detailed as diagnostic of a fractured base, I propose to present, this evening, brief histories of three cases which have come under my observation.

Case I. J. P., æt. 15, was knocked off his wagon by a stone. The stone struck him over the right parietal bone, causing quite an extensive scalp wound, which bled freely. In the fall he sustained other scalp wounds, but there was no external evidence of a fracture of the skull. He was wholly unconscious, but very restless, requiring restraint to keep him in bed. He bled freely from both ears, and slightly from the nose and mouth; internal strabismus of the right eye; pupils of both eyes largely dilated and insensible to light; pulse full, but very irregular; respiration irregular; frequent vomiting.

On the second day a profuse serous discharge replaced the hemorrhage from the ear. This discharge continued to flow freely, until the morning of the fifth day, when it ceased.

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There are large ecchymoses under the palpebral and ocular conjunctivæ of the left eye. Patient still profoundly unconscious.

Died on the sixth day.

The post mortem examination revealed, in addition to extensive fractures of the base, a fracture of the left parietal bone.

However, the lesions pertinent to the present inquiry were, first, a fissure beginning above and behind the left ear, running along the anterior margin of the left petrous bone into the middle fossa of the skull. It then passed across the sphenoid, involving the right petrous bone, and was lost in the posterior fossa.

A second fracture, starting from the same point, extended downward and backward into the mastoid portion of the left temporal. The anterior margin of this triangular portion of bone, on the line of the first fracture, was depressed about one-fourth of an inch.

Notwithstanding the well-marked sub-conjunctival ecchymosis, careful search failed to show any fracture in the orbital plate of the frontal bone.

Case II. T. M., æt. 40, was struck upon the head by a brick falling from the third story of a building in which he was working.

Five hours after the injury he is unconscious, but very restless. Pulse regular, full, and hard; respiration intermittent. Blood is oozing freely from nose and mouth, but no discharge of blood or serum from the ear. The left eye is completely closed from swelling of the soft parts. There is also a large effusion beneath the ocular conjunctiva of the left eye.

Died in eight and a half hours.

The autopsy revealed, in addition to a comminuted fracture of the left parietal, a fissure running downward and backward into the middle fossa, and here joining a fissure running anteriorly into the orbital plate of the frontal bone.

A second fissure reaches from the point of injury, along the lateral sinus, to within one-half an inch of the foramen, and is here met by a transverse fracture which runs forward, and then inward, to the foramen magnum.

There are several fissures on both the anterior and posterior faces of the petrous portion of the temporal bone.

The two posterior clinoid processes, and the bone between them, are completely detached.

Case III. C. R., æt. 15, was injured by lumber falling from a car upon which he was climbing. His body was badly bruised in several places, but the severest hurts were about the head.

When seen, soon after the accident, he was wholly unconscious, collapsed, and bleeding freely from the nose, mouth, and ears, as well as from several scalp wounds.

Reaction came on slowly, and for several hours it was doubtful whether or not he would survive the immediate effects of the accident.

Forty-eight hours after the accident he did not recognize his parents, was very restless, talking incessantly about his horses, and was with difficulty prevented from getting out of bed. At times he would cry out with pain in his head. Pupils largely dilated, and responded very imperfectly to light; ocular conjunctiva was extensively ecchymosed; complete ptosis of the right eyelid; hearing evidently defective.

The bleeding from the nose and mouth has stopped, but the flow from both ears still continues profuse. Pulse full, but very irregular and intermittent, so much so as to prevent it being accurately counted.

On the third day the bleeding from the ears ceased, and was replaced by a copious discharge of serum. He was conscious when aroused, but continued dull and stupid the greater portion of the time. Complained of severe paroxysmal pains in his head and a loud roaring in the ears. Pulse still very irregular.

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The discharge of serum from the left ear stopped on the fifth day, while the flow from the right ear continued more or less profuse until the tenth day.

He is troubled with double vision—complains that he sees two of every object around him. Two months after the accident he considered himself well. The right eyelid still drops, but the elevator muscles are gradually regaining their power. His hearing is still somewhat impaired.

Although in this case, fortunately for the patient, we are deprived of the only means of verifying the diagnosis, we have but little hesitancy in classifying it among fractures of the base, very probably involving the petrous portion of the temporal and the orbital plate of the frontal bone.

I do not propose, this evening, an exhaustive discussion of the symptoms pointing to a fracture of the base of the skull, but shall simply offer some remarks upon the value of the different symptoms.

It may seem unnecessary to call your attention to a fact which, although so plain, is apparently oftentimes ignored—that the symptoms in any case of fracture are almost wholly due to the injury sustained by the delicate intra-cranial organs. It is not the lesion in the bone that constitutes the essential feature, but the injury sustained by the brain and its membranes. We may thus have a fracture without any primary symptoms whatever, the patient dying at a longer or shorter period from the injury with some intercurrent brain disease. And thus we also readily understand why the symptoms in different fractures of the cranial bones should vary so largely.

The nature of the accident will often enable us to locate the lesion with tolerable accuracy. The experiments of Dr. Aran prove that a blow or fall upon the front part of the vault will point to the anterior fossa as the seat of fracture; upon the middle part of the vault to a lesion of the middle fossa; upon the back of the head to a fracture of the posterior fossa.

It has been pretty generally agreed upon by surgeons that the only reliable symptoms of a fractured base are the escape of some of the intra-cranial contents, blood, serum, or brain substance through one or more of the natural passages, and injury to the cranial nerves as they emerge from the skull.

The symptoms must of necessity vary with the extent and location of the injury.

For instance, take that most common and most reliable symptom, bleeding from the ear. In order that it shall be present, it is essential that there shall be a rupture of some intra-cranial vessel, probably a venous sinus, or the middle meningeal artery. There must be a fracture of the petrous bone, extending into the cavity of the tympanum, to permit its escape from the skull; and, finally, a rupture of the membrani tympani, to allow its appearance at the external meatus. With any of these conditions absent, bleeding of the ear can not be present.

Now, in point of fact, fractures of the base usually implicate the middle fossa, either alone or with the anterior and posterior fossæ, and an injury severe enough to cause the lesion in the bone is usually sufficient to cause the necessary injuries to the soft parts; hence bleeding from the ear is the common, but not essential, occurrence in a fractured base. Our second case wanted this symptom, and yet there were extensive fractures through the middle fossa. I believe the missing link here was the rupture of the tympanum, but my notes fail to throw any light upon it. The bleeding, to have much diagnostic value, must be tolerably free and continuous; a discharge, small in quantity and of short duration, can not be relied upon. If the blood filling the external ear pulsates, you have an additional proof of your diagnosis.

In an obscure injury of the head, if you satisfy yourself, which can always be done, that the tympanum is ruptured and yet the bleeding is very slight, you can with tolerable certainty throw out fracture through the petrous bone.

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Bleeding from the nose and mouth, owing to the great vascularity of these parts, possesses but little diagnostic value, unless the flow is very profuse and continuous. Such bleeding, especially when uncomplicated with severe injury to the external parts themselves, points strongly to a fracture through the ethmoid and sphenoid bones.

Fracture through the middle, without implication of the anterior fossa, may also be attended with free hemorrhage from the nose and mouth when the membrani tympani is intact, the blood passing by way of the Eustachian tube into the nose and mouth. If the blood in the same way has passed into the stomach, the vomiting of blood may be present as a prominent symptom.

Hemorrhage into the ocular tissue of the orbit and eyelid is a very constant sign of a fracture in the anterior fossa. A fracture through the orbital plate of the frontal bone, owing to its intimate anatomical relations, may readily open a venous sinus or the ophthalmic artery, and thus cause free venous or arterial hemorrhage. As pointed out by Hewett, the rupture of the artery may result in the formation of a circumscribed traumatic aneurism, requiring the ligation of the common carotid for its cure. Effusion, however, under the ocular conjunctiva is the more frequent condition.

The effusion, too, has some characteristic features. In order that it shall have any diagnostic value, the ecchymosis must show itself primarily in the orbit, not in the eyelids. Again, the ecchymosis must extend in the cellular tissue of the orbit beyond our sight; if its boundaries are visible you can very certainly exclude fracture as the cause of the effusion. "Let us not forget the exact course which the blood must take if it comes from the back of the orbit, and bear in mind that we ought not to be able to trace the limits of this sub-conjunctival effusion; a few patches here and there are of no value."

This sub-conjunctival ecchymosis was well marked in all

three of the cases we have detailed. Of the two fatal cases, but one, case two, however, showed the orbital fracture.

Let us next inquire into the claims of the so-called serous discharges to be a sign of value in the diagnosis of fractured base. A copious flow of serum, most often issuing from the ears, occasionally from the nose or a scalp wound, is by many authors considered sufficient in itself to determine the diagnosis.

It is certainly a valuable symptom, but like those already passed in review, it needs to be interpreted discreetly, or it will mislead us. The discussion as to the source and nature of this discharge has been one of the noted ones in surgery. Until its origin was settled, of course its diagnostic value must remain unsettled. It undoubtedly may come from three different sources:

1. From the interior of the skull, and is then the escape of the cerebro-spinal fluid.
2. From the membrane lining the cavity of the tympanum.
3. From the membrane lining the labyrinth.

You readily see, then, the different stories which may be told by this serous discharge from the ear. In the one case it tells with absolute certainty the presence of one of the gravest injuries; in the other case it tells merely of a temporary and slight trouble.

When the cerebro-spinal fluid escapes it is pathognomonic of a fractured base; but when you bear in mind that the line of fracture must extend across the meatus internus and communicate with the tympanum, that there must be a laceration of the sheath of the seventh pair of nerves within the meatus, and also a rupture of the membrana tympani, you readily see why this proof of the lesion in question should so frequently be absent. Let any one condition be absent, and though the fracture be extensive this symptom must necessarily be wanting.

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The diagnostic value of a watery discharge from the ear exists alone in the quantity and the time of its occurrence.

Dr. Hewett, who has so thoroughly studied this subject, arranges the cases in which this system is present into three groups.

The first class comprises those cases in which a profuse watery discharge takes place immediately after the injury. He considers these as undoubted cases of fracture, the fissure through the petrous bone implicating the internal auditory canal and its membranes.

The second group represents those cases occurring more frequently than the former, in which a profuse and prolonged bleeding is followed by a copious watery discharge. These symptoms point very certainly to a fractured base, but the diagnosis rests upon the hemorrhage rather than upon the serous discharge.

The third class comprises those cases in which a slight hemorrhage is followed by a watery discharge, varying in quantity and the time of its appearance. Concerning this Dr. Hewett remarks: "This discharge may be present within a very few hours after the accident—it may be profuse within a very few hours after its appearance. These are the cases in which experience has of late proved that the diagnosis ought to be doubtful. The discharge of blood is not of a character to warrant the diagnosis of fracture of the petrous bone; and as to the watery discharge, it is now well known that such a discharge may occur within a few hours after the accident, that it may even be profuse, and yet there may be no fracture."

It is unnecessary to interrogate the evidence offered by serous discharges from the nose and from scalp wounds, as they involve no new principles.

In conclusion, I will merely call your attention to one other valuable aid to diagnosis: injury to the cranial nerves as they emerge from the skull. We would naturally expect

to find these local nerve injuries more frequently than we do in fractured base The exemption probably arises from the fact that fractures here are not ordinarily attended with much, if any, displacement of the fragments. However, when present their testimony should be carefully weighed. They were present in two of our cases. In case one, the internal strabismus pointed to an injury of the sixth nerve, which passes out through the sphenoidal fissures, and the autopsy showed a fracture of the sphenoid.

In the third case the ptosis indicated injury to the third nerve, while the binocular vision rendered probable an injury to the optic nerve.

DAYTON, OHIO, April 15, 1876.

ART. V.—*A New Method of Treating the Pedicle in Ovariotomy, etc.* By A. DUNLAP, M.D., of Springfield, Ohio, Professor of Surgical Diseases of Women, Starling Medical College.

The interest that the medical profession has manifested in the operation of ovariotomy and the removal of fibroid tumors of the uterus, and the care with which they are studying the causes which lead to failure in these operations, induce me to propose the following plan of treating the pedicle and of securing drainage of the abdominal cavity after the operation. Evidently a large proportion of the deaths after ovariotomy result from the poisonous effects of the absorption of fluids in the abdominal cavity, or from the inflammatory action set up by their presence there.

Any plan, therefore, that will prevent their accumulating, or that will successfully remove them when present, will evidently be of interest to the profession and raise the percentage of cures in the operation.

In ovariotomy, after raising the tumor from its bed in the abdominal cavity and carrying it to one side, I would have an assistant grasp the pedicle, so as to control the circulation.

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I would then cut through the sac, severing a greater portion of the tumor. The remaining portion of the sac may then be readily peeled out from the peritoneal covering, enucleating the tumor, after the plan of Minor, of Buffalo. The blood-vessels may now be singly secured, one arm of the ligature left long. I would now pass four or five long loops of silk thread through the edges of the cut peritonæum. In holding this up, you have a cup-shaped wound, whose bottom is resting upor the upper portion of the vagina, and is only separated from it by cellular tissue and the mucous membrane. A long and somewhat curved metallic speculum may now be passed into the vagina, and pressed up to one side of the uterus, against the bottom of the wound. A small wound through the tissues may readily be enlarged by the finger, so that the speculum will pass. I would now pass the long ligatures and loops of silk down through the speculum. By drawing upon the loops, the cut edges of the peritonæum may be made to pass into the speculum, and when well passed into the speculum may be withdrawn. Thus the pedicle is inverted, and the cut surfaces are closely adapted to each other and brought out by the side of the peritoneal cavity, and any discharge from them will have to pass down into the vagina.

To insure further drainage from the peritoneal cavity, of the secretions of that membrane, or of discharges from the wounded surfaces, made by breaking up adhesions, a long female catheter or silver canula may be passed down in the center of the inverted pedicle into the vagina. It should be long enough to reach the mouth of the vagina, so that it could be fastened and held to its place. A rubber tube can be slipped over it to carry away the discharges.

If this tube was made of a double canula, the abdominal cavity could thus be readily washed out by injecting lukewarm water through one canula, and letting it pass out through the other, in cases that required it.

In cases of fibroid tumors of the uterus that required an operation, the peritonæum would have been striped down in the same way from the tumor, and the base of the tumor severed by the écraseur. And if the wound did not open the uterine cavity, I would open it, and dilate the os and neck, introduce the speculum, and pass down through it any ligatures that may have been used, and the loops in the cut edges of the peritonæum, in the same manner as was described in inverting the pedicle in ovariotomy. Here, as before, the wounded surfaces are adapted closely together, and are left extra-peritoneal. If there is danger of the os contracting on the peritoneal pedicle and holding back the discharge from the cut surface, it could be readily incised, so as to prevent that from taking place.

A very free allowance must be made for contraction of the peritonæum, or you will find that you have got your pedicle too short to pass into the vagina.

ART. VI.—*Corneal Opacities.* By T. D. DAVIS, M.D., Dayton, Ohio.

Among the uninformed laity cataract and corneal opacity are synonymous. Many eyes are lost by delaying treatment of a supposed cataract, when the disease is a serpiginous ulcer of the cornea. A mother lately brought to me her daughter, with a large corneal ulcer, but at first was unwilling to have it treated, because a "charmer" had told her it was a cataract, and she must wait until it was "ripe" before it could be taken off. To your readers a review of the subject may not prove entirely uninteresting nor uninstructive. To the specialist it is fraught with deep interest, as he is consulted for no disease more frequently, none baffles his skill more, nor none occasionally yields more brilliant results.

The writers of a few years since divided all opacities into nebula, albugo, and leucoma, according to their density. As

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the meaning of the latter two words is exactly the same, they are now used synonymously. Wells adheres to this division, but Stellwag separates them into no less than eight classes. I will consider them under three groups, corresponding to their cause: (1) inflammatory, (2) constitutional, (3) crustaceous.

The cornea, although of such thinness and transparency, is a most wonderfully formed membrane, and a knowledge of its minute anatomy is essential to the rational treatment of its morbid conditions. It may be divided from without inwards into its (1) conjunctival epithelium, (2) Bowman's membrane, (3) parenchyma, (4) membrane of Descemet. The epithelium is composed of three layers—the anterior pavement, the posterior cylindrical, and the middle a mixed form. Between these layers circulate minute cells, constantly changing position and size, their transmutations rivaling the kaleidoscope. Bowman's membrane is a condensation of the fibrillæ proper, which, agglutinated by an adhesive material, is formed into a very thin and transparent, yet firm and elastic structure. The true substance of the cornea is composed of fibrillæ compressed into upwards of sixty lamellæ, which are interwoven. Between these are fusiform, round, and flat cells, and a glutinous-like material. Beside the fixed cells are numerous small cells, which wander around, pressing their way among the fibrillæ and jelly-like cement. These I conceive are nutrient cells. They resemble lymph corpuscles, and are certainly instrumental in replacing destroyed corneal tissue. The membrane of Descemet or Demours is very similar to that of Bowman. It is lined on the inner side with polygonal epithelium, and forms part of the capsule of the aqueous humor. No blood-vessels permeate the normal cornea after fœtal life, except, perhaps, at its extreme borders.

1. In considering the inflammatory forms of corneal opacities, it will simplify the subject to divide them into (*a*) epithelial, (*b*) parenchymatous, and (*c*) internal.

The most prominent of the external or epithelial variety (*a*) is pannus. This condition is characterized by vascular injection of the cornea, and receives its name from its fancied resemblance to a (red) cloth. It is the result of inflammation, and is due to a neoplastic layer of cells under the epithelium, and even occasionally under Bowman's membrane. These cells may develop into connective tissue and become interspersed with blood-vessels. This condition is frequently confounded with inflammation of the cornea (keratitis), but it should be carefully distinguished from it, for in the inflammation the vital action is too high, while in pannus it is too sluggish. It is most frequently caused by granular lids, external irritants, inverted cilia, or traumatic influences. During the acute inflammation the conjunctiva is greatly conjested, there is profuse lachrymation and great photophobia, but these pass away, leaving only the injected vessels and clouded cornea. As to a permanent cure, much depends on its recent origin, cause, and depth. In a case sent to me by my friend, Dr. J. C. Reeve, of this city, the cause was the irritating alkaline dust of the western plains. So thick and numerous were the vessels that the patient could scarcely discern daylight through them, nor could the iris be seen. Here the prognosis was grave, but, beyond my hopes, the eye has been restored to perfect vision.

Perhaps the most frequent cause of external opacities is phlyctenular keratitis. This is a distinctly bounded cone-shaped inflammation. The base of the cone, a line or less in diameter, is in the epithelium, the apex extending into Bowman's membrane. Fluid collecting in this cavity, the epithelium is pushed forward, forming a vesicle, or the vesicle rupturing a round, depressed ulcer, very regular in its outlines, remains. Under rest and proper treatment this rapidly heals by the accumulation of a mass of formative cells at the periphery, which soon change into epithelium.

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The deep layers of this new formation may be perfectly transparent, but too often the superficial layers are cloudy.

There is an opacity that is due to a change in the epithelium itself. The cells become thickened and adhesive, having also undergone fatty degeneration. It is caused chiefly by slight attacks of keratitis. To the patient it is quite annoying, and yet to detect it requires considerable skill. It can, however, be readily diagnosed by the oblique illumination, or from want of luster in certain parts of the cornea, or from roughness of surface, as seen by examining with a lens.

Opacities of the parenchyma proper (*b*) are, of course, the most numerous, and by far the most difficult to remedy. Their name is legion. They may be caused by every variety of corneal inflammation or ulceration. Frequently the normal corneal tissue is destroyed, and nothing but firm, opaque, tendinous cicatrices remain, or there may be a grumous substance between the lamellæ, rendered opaque by contracted nuclei and fat cells. The corneal cells are swollen, and there is a fatty degeneration of the intercellular substance. Inflammatory deposits are chiefly exuded white blood corpuscles from the terminal loops of the scleral vessels and those of the conjunctiva that border on the cornea. Most lacerations of the cornea result in opacities from the attending inflammation. In the case of a stone-cutter, kindly sent to me by Dr. J. S. Beck, a piece of steel from his chisel had penetrated the cornea, lacerating it considerably. The consequent inflammation had generated pus, which had infiltrated the lamellæ over two-thirds of the cornea (onyxa). By evacuating the pus and instituting gentle pressure the opacity was reduced to less than a line in diameter, and even this is continuing to disappear.

The opacities following operations would come under this head, although clean cuts or punctures rarely leave any.

Small opacities are met on the posterior surface of the cornea (*a*), due to inflammatory changes in the internal epi-

thelium They mostly are arranged in the form of a pyramid, with the base downwards, and are due to a precipitation of lymph (Wells). They are concomitants of inflammations of the internal coats of the globe and of iritis, or the result of aquo-capsulitis (Mackenzie).

2. Of the opacities resulting from or modified by constitutional taint, there is a peculiar form caused by intra-ocular pressure, as in glaucoma, but they become insignificant in the presence of the graver disease. Of more importance are those caused by the peculiar disease so ably described by Sœlberg Wells, under the contradictory title of Non-inflammatory Suppurative Corneitis. While the true lesion may be inflammatory, yet the symptoms are so radically different from acute inflammation that it should be classed under this head. There is a complete absence of photophobia, ciliary neuralgia, irritation, lachrymation, or congestion. Suddenly there may appear an opacity of yellow color and sharp, defined edges; rings of yellow color are rapidly formed around this spot, the tissue of the cornea disintegrates, fatty degeneration takes place, pus cells are formed, and an abscess ensues which reaches great depth, even to perforation, but it is more inclined to extend in circumference than in depth. A favorable change occurs when there are symptoms of an acute inflammation set up, which may limit the march of the disease, and cause the necrosed cornea to slough and new tissue to form; more or less opacity is left. There are leucoma caused by paralysis of the fifth nerve, the irritation to the eye in exophthalmic goitre, in xerophthalmia, and other diseases to which we will not advert.

The so-called scrofulous keratitis described by Dixon we place here. This disease is much more common than is generally supposed; indeed, as the origin of acute opacities I place it next in frequency to the one presently to be described. The chief symptom is extreme intolerance to light, with an absence of congestion, or apparent cause of the irritation.

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Soon, however, there is a small white speck or pustule formed in the cornea, to which extends a beam of blood-vessels from the now slightly injected edge of the cornea. It is exceedingly difficult to cure on account of the tendency to relapse, and I have never found any benefit from external applications until the patient was put under an anti-strumous régimé. But the most aggravating form of all is that of phlyctenulæ, found in scrofulous children. It has many symptoms in common with the form just described, but lacks the extreme photophobia. It is most like the regular herpes of the cornea, with which its anatomy is identical, except that the vesicle never forms, but only the opaque nodule, and it is invariably surrounded with patches of clouded tissue. I have under my care now a little girl, sent to me from Indiana, who presents a typical case. When I first saw her she had to be led by the hand, and could not see my face. Her eyes were not at all irritable, but both corneæ were densely clouded, with here and there small, thick, opaque spots. The conjunctiva was not injected, but there was considerable lachrymation. Under constitutional treatment and local applications calculated to induce slight inflammation, the opacities, although of four years' duration, have gradually disappeared, but only after very frequent and discouraging relapses. She now sees to walk to my office, and can read large type, but every few days a new spot appears as a center from which a halo is shed, but these are growing less frequent and smaller, and I hope for an ultimate cure. Several other cases now under my care present a similar history. I only get the opacities removed to have them return like clouds in a summer sky.

3. The crustaceous form may follow any of the inflammations mentioned, but they are very rare. They may consist of chalky deposits—phosphates and carbonates of lime, cholestrine crystals, and even bony deposits have been found after death. The most common form is that of metallic in-

crustations, the result of the injudicious use of metallic salts in collyria. This is especially true of acetate of lead, and under no circumstance should it ever be used where there is the slightest abrasion of the cornea. This can not be emphasized too strongly, as sugar of lead is the panacea for eye troubles in many households.

The prognosis is generally favorable in recent cases, or where the cause has been simple inflammation; those resulting from ulcers are much less inclined to clear up. Where the opacity has become tendinous, cicatricial, or calcareous, we can promise but little. For those modified by scrofulous taint, much is to be hoped. In children gratifying results are obtained in almost all varieties, the natural growth of the cornea apparently displacing the diseased tissue.

In epithelial opacities cures take place by the absorption of the neoplasm and the exfoliation of the diseased epithelium, which is replaced by transparent cells. In the parenchymatous the interlamellar cells are absorbed, or there may be a higher formation of regenerated corneal layers. Therefore the rationale of our treatment is to hasten these ends. Many and various are the remedies offered, from eel's-liver oil and viper fat to pounded glass and desiccated clay; but the whole mass from which any benefit can be expected, by external application, may be divided into irritants and antiphlogistics. The former excite hyperæmia of the parts, increase the interchange of material, or accelerate and stimulate the process of absorption. The latter are calculated to subdue existing inflammations and soothe the irritated membranes. We believe there is no specific virtue in any remedy, and only those that can be classed under these heads are worthy of consideration. The plan of treatment is therefore exceedingly simple, and is not based on the virtue of a remedy, but upon our knowledge of how it acts. How utterly improper it would be in cases at the height of the inflammation to add irritants and warm fo-

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mentations, or in those sluggish, non-inflammatory forms to apply astringents and cold applications. It is necessary to select a few applications, and become perfectly familiar with their action, if we hope for success. As the eye in time becomes indifferent to a remedy used exclusively, it is best to be familiar with two or three in each class, but more than these only tend to confuse. My favorite local remedies are, among the anti-phlogistics, depletion, astringents, and rest. The first by abstraction of blood from the temples with the artificial leech, or occasionally by scarification of the lids, but never of the ocular conjunctiva. Second, cold applications and solutions of tannic acid, varying in strength up to saturation, according to the degree of inflammation, and, of course, atropine. Third, rest, by means of a bias flannel bandage bound gently round the eye, the depressions being filled with jewelers' cotton. I have rarely found use for any other remedies in the inflammatory stage of opacities.

As irritants, calomel, dusted into the eye, stands first. Care, however, should be taken in its use, where there are any abrasions of the cornea or phlyctenular ulcers, to keep it from lodging in them, for, by the action of the tears, it may be converted into the corosive chloride, thus actually cauterizing and doing great damage. Yellow oxide of mercury—one to five grains to the drachm of fresh, unsalted butter, lard, or simple cerate—is an excellent preparation. One of the best vehicles for the administration of irritants, or, in fact, any medicament, to the eye, is a mixture of one part of glycerine to four of starch. By heating the glycering and adding the starch it attains the consistency of ointment, and has the great virtue of not becoming rancid. The glycerine should be perfectly pure, or otherwise it contains severe irritating qualities. As it dissolves readily in the tears, it should not be medicated as strongly as an ointment. A weak solution of sulphate of cadmium in wine of opium is regular in its action. Finely powdered sulphate of soda, dusted on the

cornea, may take the place of calomel, but has no advantage over it. The sub-conjunctival injection of a solution of common salt—twenty grains to an ounce of water—every three or four weeks, is claimed by Rothmund to have great efficacy.

In all cases, therefore, of opacities attended with high inflammatory action, the first thing to be done is to reduce the inflammation, but not cut it too short, for then the abnormal blood-vessels would simply contract and remain as opaque deposits. When the inflammation has entirely subsided, we must create irritation enough to cause absorption to take place, and this can readily be accomplished by the judicious use of the remedies mentioned, being careful not to excite too much irritation, and thereby do more harm than good. We will be greatly aided in this by remembering that a less degree of irritation is required in the epithelial varieties than in those seated deeper. In those cases classed as constitutional, internal treatment is absolutely necessary, especially the administration of iron. A favorite preparation, on account of its efficacy and pleasant taste, is the tincture ferri pomatæ of the Prussian Pharmacopœia. Our own syrup of the iodide of iron is also good. Cod-liver oil may also be necessary, with a strict attention to all the general rules laid down in the treatment of strumous diseases.

In the crustaceous forms, especially if the cicatrices be tendinous, but little can be done, although some very interesting cases have been reported where the deposits have been removed by operation. In the densely opaque forms of long standing, if possible, an artificial pupil should be made at the side of the opacity. I mention, simply to show the device and daring of some as a *dernier resort*, the establishing of a small fistulous opening in the center of the cornea, thus allowing a few rays of light to penetrate the darkened chamber. Nausbaum endeavored to insert a crystal cornea, and it has even been attempted to transplant cornea from animals, which, of course, has proved worse than useless. In hope-

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less cases the appearance may be greatly improved by tattooing the opacity, making it to resemble somewhat the normal eye.

ORIGINAL LECTURES.

ART. VII.—*On the Legal Responsibilities of Medical Men.* Lectures Delivered in the University Medical College, New York. By STEPHEN SMITH, M.D., Surgeon to Bellevue Hospital, New York.

Upon engaging in the active duties of your profession, certain reciprocal relations are established between you and the community in which you reside, which have the sanction and force of law. These relations it is important that every practitioner should thoroughly understand at the outset, in order to the performance of his duties within those limits, which will protect him from future harm and annoyance. Some of these more important relations I propose to consider in this and the following lecture.

On receiving your diploma, you will naturally inquire as to its value. In this and many other States it is not, before the law, worth the material on which it is written. It confers no privileges, no rank, no honors. It does not elevate you above the neighboring blacksmith or watchmaker. They stand on the same footing with you, as regards the rights, duties, and responsibilities of your own profession. They may any day be your rivals in practice, though they have never opened a medical book. Your neighbor, the blacksmith, has but to prefix the title "Doctor" to his name on his door, to place himself on the same legal professional footing as yourself; so that, before the law, you have gained nothing by years of study and effort to obtain a diploma. If, however, you are summoned into court to answer to the

charge of malpractice, your diploma will be received as *prima facie* evidence of your skill. But even then you will derive little advantage from your diploma, for the court will hold you to a higher grade of responsibility, simply because you give this proof of your qualifications.

Your first act, after selecting a place of settlement, will be "to put out your shingle." This is ordinarily a very simple and pleasant duty, and yet, viewed in its proper light, it is an act of momentous importance. You thereby enter into a solemn covenant with the people among whom you propose to practice. Though this contract is implied, it is nevertheless as valid as if it were reduced to writing, and signed, sealed, and delivered in the presence of a witness. For what does your "shingle" announce to community? Plainly, you intend to have it understood, *first, that you are prepared to attend upon the sick; second, that you are qualified to treat their diseases with ordinary skill; third, that you will exercise proper diligence and care; fourth, that you will practice according to the tenets of the school to which you belong.* That the people put this construction upon the act is proved by the first call that is made, and by the subsequent suits for malpractice which they institute for alleged want of skill or negligence, or both.

Let us analyze this contract. 1. You engage to attend upon the sick on call. Must you go at every call? No; you may refuse to attend any sick person when first summoned. You are in the position of an artisan, who may accept or decline work at will. But, having accepted the call, your obligations are of the most imperative kind, and continue, unless interrupted, to the termination of the case. There are two ways by which you may withdraw from a case which you have undertaken: First, the patient may discharge you peremptorily, and at any time; you have no alternative but to retire from the case; he is the employer, and can terminate the engagement at any moment. Second, you may withdraw after having given the patient timely notice of your inten-

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tion; you must fix the time so far in advance as to give the patient ample opportunity to secure the services of another medical attendant.

2. Your "sign" advertises the community that you are qualified to treat the sick; in other words, you contract to bring to the discharge of your duties the requisite knowledge and skill. What degree of knowledge and skill does the law require? It "does not require the possession of the highest, or even the average, skill, knowledge, or experience, but only such as will enable them [physicians] to treat the case understandingly and safely." This rule, properly construed, is a very just one. You are required to have that knowledge and skill essential to treat each case understandingly. The exact measure of this knowledge and skill can not be fixed, but the law recognizes the fact that it will vary with each case, and that it rises in proportion to the gravity and complexity of the disease. The courts have very judiciously discriminated in determining the question of knowledge and skill, as follows: First, the surgeon "does not undertake that he will perform a cure;" second, "he does not undertake to use the highest possible degree of skill, as there may be persons of higher education and greater advantages than himself"; third, "he undertakes to bring a fair, reasonable, and competent degree of skill." It may be alleged that, under such a decision, the surgeon may plead his ignorance of more recent improvements in practice. But each case will be decided upon its merits. A surgeon in Alaska might escape under such a plea, while the surgeon of New York would be held responsible for not obtaining such knowledge which was within his power. "Medicine," says a learned jurist, "is a progressive rather than an exact science." "The standard of medical qualification," says another legal writer, "is on the advance." And in a recent case, where the defense of the surgeon was that the disease was rare, the court held that he should have been familiar with the few recorded

examples, in the following remarkable language: "These rare and isolated cases have been recorded as lights to the profession, admonishing the surgeon to use greater care, and, instead of excusing, go far to implicate the defendant; for, if he has not read the books, he is guilty." In advertising yourself, therefore, as qualified to treat the sick with proper skill, you contract to apply the current knowledge of the present time. "The standard of ordinary skill," says a standard author, "which is required of every physician and surgeon, it will be borne in mind, is that degree and amount of knowledge and science which the leading authorities have pronounced as the result of their researches and experience up to the time, or within a reasonable time before the issue or question to be determined is made. It is not enough for a surgeon to plead that his treatment was that taught him by the ablest members of the profession and the best schools twenty-five years ago. * * * An amputation that would have been justified by the rules of surgery, and the operator protected in court, twenty-five years ago, or even within less time than that, would now be repudiated by the best authority, and the operator justly chargeable with ignorance and unskillfulness."

It is evident that this part of your implied contract, under recent decisions of courts, is of no slight importance as regards your qualifications to treat the sick. You are not only to be well-grounded in the principles and practice of the art, but you bind yourself to maintain a practical familiarity with all its latest improvements. You must, therefore, ever after be a student, and avail yourself of every practicable means of information as to the progress of discovery in all branches of the medical sciences. You can not rely upon your old text-books as guides, but you must study the recent works, and, above all, read the current medical journals, which contain all the more recent information.

But this is not all. You contract not only to exercise

ordinary skill, but you "are also bound always to use your best skill and judgment in determining the nature of the malady and the best mode of treatment, and in all respects to do your best to secure a perfect restoration of your patients to health and soundness." If you have extraordinary skill in practice in any branch, you are obliged to exercise that skill to the full extent. Even if you profess special skill, you are held responsible for your failure to exhibit it. A legal expert thus states the rule: "Wherever great and extraordinary skill is possessed by an individual, causing his employment exclusively on that account, there can be no doubt of his obligation to bestow it to the full measure of his ability, since the exceptional degree of that skill is the moving consideration to his employment, and its recognition is expressed in the superior charges for services, which he is both expected and justified in making."

[TO BE CONTINUED.]

ART. VIII.—*A Lecture on Posture.* Delivered before the Pupils of the School for Nurses, Charity Hospital, B. I., February 13, 1876. By WILLIAM M. CHAMBERLAIN, M.D., Visiting Surgeon to Charity Hospital.

The signs of disease are classified as rational and physical. The rational signs are those which we learn by the report of the patient; the physical, those which we perceive by our own senses. The first are matters of testimony, the second matters of observation. We believe what we see more constantly and more entirely than what we are told. Disturbances of the bodily health are generally attended by more or less disturbance of the mind. Fear and hope, and conceit, and vanity, and petulance, and desire for sympathy, and indifference, and stupor, all disturb the truthfulness of the mind, make the patient misconceive his own condition and misrepresent in his account of it. It is a significant fact that certain chronic diseases are called, sometimes, "liver

complaint," "kidney *complaint*," etc., as if the most characteristic feature of the case were the habit of telling all sorts of querulous stories about them. The physician knows so well that the sound mind does not inhabit the sick body, that he will not have charge of his own case when he is ill. If it be true, as the proverb says, "that the man who pleads his own cause in court has a fool for a client," quite as true is it that he who is his own physician leans on very unsafe counsel.

It is not so with physical signs; they tell the truth every time; they are positive, and, rightly interpreted, can not mislead. Hence we seek to find as many of them as we can, and read in them the real natural history of disease. We weigh, measure, count, analyze, test, auscult, percuss, study alterations in form, color, texture, temperature, and try to find the reasons of every thing we see.

In this spirit let us for a little consider the relations of posture to disease, both in its study and its treatment; meaning by posture, the positions of the body and its parts, and modes of movement. A large book might be written on the subject. I can only touch it at a few points.

BRAIN DISEASE.

During the rainy weather of last August, I was on duty in the obstetric wards. We lost three new-born children by tetanus, which is apt to prevail in warm, moist seasons, and island climates. Those of you who saw those little patients, lying on the bed with fly-nets over them, will remember how peculiar were their attitudes—the head drawn back between the shoulders, the limbs bent and rigid, the thumbs shut into the closed palm, the feet drawn up, and the toes rolled under. These facts of posture were much more significant marks of the disease than any which could have been found in the pulse, the temperature, or the secretions. They are the signs of irritation of the spinal cord, particu-

larly of its anterior columns, whence issue the nerves which control the muscles all over the body. You will see more or less of these signs in all diseases which consist essentially in congestion or irritation of the membranes which envelop the spinal cord or the brain, which, you know, is but an expansion of the spinal cord, a sort of bulb blown upon its upper end.

These membranes are called the meninges; hence we have the term meningitis, or inflammation of the meninges, in its varieties of simple and tubercular meningitis (called, also, hydrocephalus—water on the brain), and endemic cerebro-spinal meningitis, in all of which muscular rigidity and the retracted head are among the early symptoms. Coupled with these are the uneasy movements of the head, boring into the pillow, and rubbing of the occiput, often until the hair is worn off by friction.

If you put your hand beneath the neck you will find the splenii or extensor muscles of the head no longer lie in their place along the natural curve of the spine, but are raised out of their bed, and are stiff and shortened. This disturbance of the nerves of motion causing general muscular spasm, makes more apparent the disproportion between antagonist muscles, the more developed muscle overpowering that which is less developed, and as the flexor group of muscles are generally more powerful than the extensor, the body comes, as the disease advances, to assume a position of general flexion, the thighs bent on the pelvis, the legs on the thighs, the elbows bent, and ths arms pressed against the chest. And this is what the French call the *chien de fusil*, or gunhammer position. Whenever you see these peculiarities of posture you may know there is trouble with the mambranes of the cord—irritation of its motor columns. It is thus we interpret what we see in hydrophobia, strychnine poisoning, and the first stages of anæsthesia by ether and chloroform. When the irritation has continued to the stage of exhaustion, pa-

ralysis takes the place of spasm, the contracted muscles relax, the position on the side is exchanged for the supine, the patient slides down in bed, and we know that if the causes still continue life will soon end. I have said that the retracted head is a sign of meningeal irritation, but I must make one exception. It is in croup and diphtheria, in the later stages of which the head is thrown back in order to stretch the muscles which pull apart the sides of the larynx, and to straighten the trachea, so as to allow the passage of a larger volume of air. Here the livid face, the muffled voice, and the sonorous breathing tell you that it is the throat, and not the brain, which is the seat of disease.

ORTHOPNEA.

Here and there in the medical wards of the hospital you will see patients sitting, propped up with back-rests, in bed, unable to lie down. This we call orthopnea, or the erect position, assumed for ease in breathing. Now, this position does not belong to all forms of thoracic disease. The average patient with phthisis, pneumonia, or valvular disease of the heart, can breathe tolerably lying down. But there are three conditions known to me which usually cause this orthopnea. The first is, the presence of fluid in the bronchial tubes, in the air cells, or in the cavity of abscesses. Fluids will always gravitate to the lowest level they can find. In the horizontal position of the body, fluid in the bronchial tubes will suffuse a much larger portion of the lungs than in the erect. Suppose my four fingers, held thus, perpendicular to this table, are so many bronchial tubes partly filled with fluid; that fluid will settle to the last joints, the terminal portions of the bronchial tubes; but if I lay my hand down thus, on the back, the fluid will flow along the whole length of the tubes. Supposing the fluid is in the cavity of an abscess or tubercular excavation, in the erect position it will settle to the bottom of that cavity, and there remain; but,

in the recumbent position, it will flow out of the cavity into the bronchial tubes, and excite the spasm which we call cough. Ask these patients why they sit up, and they will tell you they can not lie down without coughing.

The diseases in which the lungs are thus charged with an excess of fluid are the suppurative stage of consumption, bronchitis with profuse secretion, senile catarrh, and œdema of the lungs, when the substance is so filled that it transudes into the bronchial tubes. When, from disease of liver, heart, or kidneys, there is dropsical effusion all over the body, there is usually more or less œdema or dropsy of the lung also; but it does not ordinarily produce orthopnea until the fluid finds its way into the bronchial tubes. There may be a great deal of fluid in the cavity of the pleura without producing this symptom of orthopnea. Patients whose chests, outside of the lung, are half filled with fluid, will often lie down and remain quietly, generally on the side affected.

Another cause of orthopnea exists in connection with some diseases of the heart. You know that the aorta, the pulmonary artery, the venae cavae, the great vessels which carry the blood to and from the heart, are found at its upper and posterior portion. When the body is erect the weight of the heart falls in the general direction of the axis of these vessels, and tends to keep them open, and favors an unobstructed flow of blood in and out. When the heart is normal in size and weight, the elastic tissues in which it is enveloped have sufficient firmness to keep it where it belongs. But when the weight of the heart is doubled by fluid effusion into the pericardium, or by overgrowth of its tissue, then, in the recumbent position, the heavy heart sags backward, perpendicular to the axis of the great vessels, and thus bends them and diminishes their caliber, and therefore their power to transmit blood back and forth.

You may see a case in ward five of dilated and hypertrophied heart, in which I account for orthopnea on the fore-

going theory. Another cause of orthopnea exists in asthma and emphysema, in which the lungs are temporarily or permanently overfilled with air, which can not escape on account of the contracted condition of the bronchial tubes. Now, the residual air remaining in these dilated air cells does not answer the purpose of *fresh* air, which must still be inhaled. To further expand a chest which is already over-expanded, it is necessary to call in the aid of other muscles; the patient sits up, takes hold of some support above his head, the head-board of the bed or a swinging-bar, or rests his elbows on a high table, in order that he may lift up the shoulder-blades and collar-bones in such a way as to pull up the ribs and make more air space in the chest. It is by such forced inspiration that he brings up arrears when the ordinary breathing is insufficient. When we have been sitting still for a long time, we instinctively get up and stretch our arms upward and backward, and thus, by aid of the voluntary muscles, fill the chest to the utmost.

This we call yawning. When we have been under the influence of absorbing thought or depressing emotion for some time, respiration becomes less and less complete, until we have to draw a long breath to compensate for many short ones. This we call a sigh. The sigh and the yawn consist, then, in a call upon the voluntary muscles to supplement the involuntary in procuring a free respiration; and this is just what the emphysematous and asthmatic do when they raise their arms and shoulders.

When the malarial poison has occupied the body, the little capillary blood-vessels contract and fail of their proper circulation, the skin becomes dusky and wrinkled, the fibrous tissues around the joints in pain cry out for more blood, the muscles of the chest fail to expand it, and the subject is compelled to yawn, and stretch, and shake, that is, to do a number of things by the aid of the dynamic muscles, which, in the healthy body, are done by the organic.

SUSPENDED ANIMATION.

Now, this power to make one set of muscles do the work of another has much to do with the treatment of cases of suspended animation (one form of which you will see much of, and will be expected to be able to manage); therefore I shall take this occasion to enlarge upon it. I mean still-born infants.

The unborn infant receives its supply of oxygen through the blood of the mother. So soon as the placenta is detached from the interior of the womb, or the cord which connects the child to the placenta is divided, the child can no longer breathe with its mother's lungs, but has to employ its own. Up to the moment of birth, the child has been standing on its head in a bag of warm water at a temperature of ninety-eight degrees. At the moment of birth, by the rupture of the membranes, the child is launched into the world. All the nerves of the skin receive a sharp impression from this sudden change, from warm water to cold air, and this impression is reflected upon the nerves of sensation through the brain and cord to the nerves of motion; the diaphragm and chest are excited to action, the ribs rise, the chest enlarges, and air rushes into the lungs.

Thus the mechanism which nature employs to excite respiration is the sudden transit from warm to cold, from wet to dry; and when this mechanism fails of its full effect we imitate nature by plunging the infant into quite warm water for a few seconds, and then swinging him aloft through the cool air, or we dip him alternately for a few seconds, first into warm and then into cool water. The strong impression on the nerves of the skin is that which we seek, but it is not, as I think, a matter of indifference in what order we employ heat and cold.

The heat should come *first*, for heat is a direct stimulant, and cold is primarily a depressant, and always so when there is not a reaction from it. This reaction belongs to a skin which is warm and full of blood, and it does *not* belong to a

cool and livid surface. The spray of ice-water is positively grateful to the man who leaves with a reeking skin the hot chambers of the Turkish bath, but it is the most horrible punishment to the already chilled convict, brought from his cell in prison to be placed in the disciplinary shower-bath; so horrible is it that I am glad to say it is no longer used in most prisons.

For the same purpose of irritating the cutaneous nerves, a light but smart slap with the broad hand is given to the infant, and is sometimes sufficient to rouse an act of respiration.

I have little faith in any effort to inflate the lungs by breathing into them through the infant's mouth, but it may have often led to a more important act, namely, wiping out the mouth to free it from viscid mucus, which is sometimes found to occupy it. It is good practice, if the breathless child seems to be large and lusty, to let the cord bleed before tying it. Not more than a tablespoonful need escape, but even this little will make a movement which extends to the remotest capillary, and sometimes seems to relieve a congested medulla oblongata, which is the center of the respiratory nerves.

By this means you will generally excite the act of breathing, and it will ordinarily grow stronger and more perfect without further interference on your part. But sometimes it is not so. The breathing *may* grow shorter and more feeble, and something must be done to maintain and enlarge it.

For this purpose we have several methods. In the first, named after its author, Dr. Silvester, the hands are first stretched down, palm to palm, and then carried up in a half circle until they are extended to their full length above the head, thus mechanically lifting the thorax and distending it. This is done about fifteen to twenty times a minute, in imitation of the frequency of natural respiration; and thus by the agency of the arms the ribs are lifted and the cavity of

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the chest enlarged. To fill this enlarged space the lungs expand, and air is drawn inward through the trachea and bronchi. When the arms are lowered the chest contracts and the air is expelled, but the object has been gained. The blood has taken up oxygen and surrendered carbonic acid; one degree of aeration has been secured. Second, that of Marshall Hall, which consists in slowly rolling the body of the infant from the supine position to the prone, and back again, at the rate of fifteen to twenty times in a minute. Third, that of Schulze, in which the child is supported by the forefingers in the axillæ, and the body of the child is made to swing backward and forward in such a way as alternately to flex and extend the lower extremities, and thus expand and contract the chest. To these I would like to add another proceeding, which is to place the left hand beneath the buttocks of the child, and the right beneath the occiput and neck, and to raise and lower the trunk to the sitting and the lying posture. As the back curves forward, the ribs sink and collapse, the intercostal spaces are closed, the liver rises beneath the diaphragm, pressed upward by the contents of the abdomen, and the space for the lungs is reduced to a minimum. The act of *expiration* coincides with this movement. When the reverse movement is made, the ribs rise and separate, the intercostal spaces widen, the diaphragm and liver descend together, and the open space of the chest is greatly enlarged. This makes an act of *inspiration* necessary. You may verify these statements by stooping forward without bending the knees. Letting the hands fall toward the feet, you will find that you naturally expire in so doing; and when, on the other hand, you straighten upward and backward, you as naturally draw in the breath. I can not say that I have often employed this manner, but will ask you to try it, because, according to my idea, it has all the advantage offered by the others, and it is a much more quiet and comfortable proceeding for the child.

REST.

You go to bed when you are sick. Why? Instinct compels you to it, in order that you may have the advantage of that means of cure which is more powerful than any other, and often more powerful than all others.

Are the lungs affected? Rest in bed slows the rate of the heart, which is all the time pumping blood into them, and slows the rate of respiration, which is all the time heating the blood in them by the oxydation of the blood in the air-cells. In a doubtful case of pneumonia, the more absolutely still you can keep patients the better. I tell the house staff not to make them sit up for auscultation and percussion, or any other examination. Are the joints affected, as in acute rheumatism? Rest in bed stops the grinding of one swollen surface on the other—stops the twitching of the muscles at the ligaments which invest them. I might go on adducing illustrations, the truth of which you would at once recognize, but I may state the idea generally by saying: Rest, in the recumbent posture, restrains all the destructive forces, and relieves the embarrassment of all the forces of repair.

GRAVITATION.

The law of gravitation—that is to say, the fact that weight of all kinds tends toward the lowest attainable point—has an important relation to the care and cure of the sick. If any organ be unnaturally heavy, either from hypertrophy, which is over-growth of its texture, or congestion, which is an over-supply of blood, or œdema, which is a dropsical effusion of fluid into its substance, it will drag or settle in such a way as not only to disturb its own functions, but to displace and embarrass other organs.

If the patient has an enlarged liver, nature ordinarily compels him to lie on his right side, because if he lies upon his left the liver weighs down the stomach and the spleen, and so renders him uncomfortable. For the same reason the

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patient with enlarged spleen lies upon the left side; and, if a female, upon whichever side she may happen to have an ovary enlarged by solid or fluid accumulations. The patient who has varicose ulcers of the leg will rarely get well while he walks about, but many cases will be cured simply by lying in bed with the limb affected placed upon an inclined plane. Erysipelatous swellings of the lower limbs, congestions of the uterus, or of the hemorrhoidal veins, commonly called piles, get better on the same simple plan.

Furthermore, most morbid processes are influenced by the supply of blood to the part affected, and this is, or may be, largely controlled by posture. If you happen to scald your hand, you will not fail to notice that the smarting is not half so severe when you lift the hand above the head as it is when you allow it to hang by your side. It has, I believe, been found that treatment of fractures of the leg by the anterior splint, in which the leg is swung above the level of the body, is not only very useful in moderating the excess of local inflammation in the earlier stages, but hinders and protracts the later stage of repair, by which the broken bones are united and the callus reduced. The control which you may exert over the circulation by changes of posture should be thoroughly understood and never forgotten, for it may be made of almost daily use.

In all cases of hemorrhage, you should at once, if you can, turn the weight of the column of blood away from the bleeding point. In all wounds of the extremities, the bleeding leg or arm should be raised as far as possible, and when the blood is flowing from the vagina or the rectum the foot of the bed should be raised and the pillows taken away. In cases where bleeding has already continued to faintness, where the amount remaining is insufficient to keep up the circulation through the brain, or in faintness from nervous shock—you will remember that faintness means a brain deprived of its proper amount of blood; you will also remem-

ber that any other organ in the body can better afford to lack a full supply of blood than the brain, and you will do what you can to keep what is left in the brain, by raising the foot of the bed—put two or three bricks under each leg, and, if the case be a very bad one, shut off the blood from the extremities by putting ligatures round the thighs and arms. By the aid of this same simple device of raising the foot of the bed, we have been able to dispense with one of the most uncomfortable appliances of old-fashioned surgery. It used to be the rule to treat fractures of the thigh by fastening the leg to the bottom and the thigh to the top of a long splint. The strap which crossed the perineum was always uncomfortable, and often produced serious ulceration. By raising the foot of the bed, the weight of the body furnishes the counter-extending force in a much more comfortable way.

The bowels or intestines slide freely in the cavity of the abdomen, in accordance with the law of gravity, and this is a very important fact in the management of some diseases of these organs. Weakly children suffer from prolapse of the rectum. This intestine comes outside of the anus, inverted much as you sometimes invert a finger of your glove in pulling it off. Sometimes it becomes strangulated by the compression of the sphincter muscle, and then it swells and becomes so large and tender that it is difficult to return it by direct pressure. Irish mothers will tell you the child's "little body comes down"—a phrase which, I remember, took me some time to learn. The same accident more rarely occurs to adults. If you have vainly endeavored to put it back, you will be much pleased to see it slide back, drawn upward by the weight of the upper bowel, when you lift the child up by the feet or cause the adult to take

THE KNEE AND ELBOW POSITION.

You should all be familiar with this knee and elbow position, in which the patient kneels and drops the chest down

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to the couch or bed. As this attitude is the direct reverse of the ordinary, so all the contents of the abdomen gravitate in a direction opposite to that which is ordinary. The liver, the womb, the ovaries, and the intestines fall upward toward the diaphragm. Downward displacements of these organs are at once relieved. I have often wished that I could keep a patient suffering from retroversion, or falling of the womb, in this inverted posture until it should, as it *would*, cure her. The congested and inflamed organ would become emptied of blood, and would glide back into its place without any other treatment. In cases of hernia, where the intestine descends and becomes strangulated and immensely swollen, so much so that it can not be put back, if the patient be put in the knee and elbow position the fluid contents of the tumor will first return, and then the intestine itself, or it may then be replaced by a little manipulation with the fingers, which would have been entirely fruitless with the patient standing or lying on the back.

In obstetrics this position is of the greatest value. In cases where the cord descends in front of the head, as you know, it becomes compressed between the neck of the womb and the child; circulation is shut off, and the child surely perishes if labor be protracted. In cases where an arm descends first into the vagina, the continuing pains wedge the shoulder into the pelvis, and the case becomes one of the most difficult and dangerous both to child and mother. Efforts to replace these parts you should always make, in the absence of the physician, at least so far as to place the patient in the knee and elbow position, and, without violence, press back the descended portion into the womb. Add to this, pressure on the child's head, felt through the abdominal walls, and directed in such a way as to move it toward the mouth of the womb, and you will sometimes gain to yourselves the satisfaction of averting a very serious danger and securing a safe and easy delivery.

This subject might be illustrated in many other ways, but I have, I hope, made its importance appear to you; and if you bear it in mind as it deserves, new and various applications of the principles will be all the time suggested to you.

CLINICAL RECORDS.

ART. IX.—*Case of Multiple Sarcoma.* By STARLING LOVING, M. D., Prof. of Principles and Practice of Medicine, Starling Medical College, Columbus, Ohio. Read before the Columbus Academy of Medicine April 14, 1876.

On the 28th of December, 1875, saw William G., æt. 28, a native of Germany, but long resident here; married, and by occupation a worker in iron. Has a fair complexion, blue eyes, brown hair, and aquiline features. Is slender but muscular, and well developed. Is somewhat emaciated, and appears anæmic, the skin is sallow, the conjunctivæ pearly, the lips and gums pale, the tongue large, indented by the teeth, and palid, and the hair is dry and harsh. The face is contracted and wrinkled, giving the expression of suffering as from protracted and severe pain. There is ptosis affecting the left eye, quite noticeable but not complete, as the lid is partly under control of the will. When the lid is raised the eye is found to be motionless and fixed, the pupil is dilated to a considerable extent, and does not respond to light. The patient asserts that he can not see near objects with the afflicted eye, and also that distant vision is imperfect. The skin is cool and perspiring, the pulse 78 per minute, rather feeble, but perfectly regular. There is no cough or other evidence of disease of the lungs. The sounds of the heart are normal.

The patient complains of pain and distress in his abdomen, which he at the present time attributes to obstinate

constipation, and in part to the effects of some cathartic medicine which he took in the morning, without, so far, any other result. He suffers also from pain in the lumbar region, from pain and stiffness in the posterior cervical region, and tenderness in that region on pressure. He has headache, the pain being confined mostly to the occipital region. He has also pain in the lower jaw, particularly on the right side, near the first molar tooth, extending to the symphysis. At the same time it appears that the sensibility of the right side of the chin and of the lower lip is diminished. It seems, he says, as if these "parts were asleep." The upper lip to the nose, and the parts immediately adjoining, are similarly affected. The pain in the head is not acute in character, but it has been almost without remission during the past several weeks. On several occasions within the last three months he has had paroxysms of severe headache, continuing for hours, and completely disabling him for the time.

He says he is somewhat giddy when he stands and attempts to walk, and the correctness of this assertion was proven by his staggering and uncertain movements when he arose at my request and walked a few steps.

In addition to being large, pale, and indented by the teeth, the tongue is coated with a dirty-looking yellowish fur, very thick at the base of the organ. The saliva is abundant and somewhat adhesive, the appetite poor, the breath fœtid, and the bowels, as before intimated, obstinately constipated, as has been their condition, except during short intervals, for many months. The urine appears normal on inspection.

The patient has been ill several months; has suffered constantly, more or less, from the pain in his head, neck, and back, from constipation, and from dysuria, and on several occasions from retention of urine for short periods; but he has been able to continue his business until ten days previous to my visit, when his sufferings increased so much that he was obliged to remain at home.

He has taken, since he has been confined to the house, some purgatives and other remedies, but was not relieved by their action, and, finding himself worse to-day, decided to have professional advice.

Close examination revealed nothing by which the symptoms described could be accounted for; and, without arriving at a conclusion as to the nature of the case, I gave some opium to procure sleep, of which the poor fellow seemed sadly in need.

December 29. Found the patient in essentially the same condition as at last visit. The opium mitigated the pain and gave some hours of sleep.

On inquiring further into the history of the case, I was informed that at irregular periods, extending over several months, there had been paroxysms of febrile excitement, or rather of decided fever, followed by profuse sweating. No additional facts bearing on the cause of the symptoms elicited. Found on questioning the patient that there is no reason to suspect the existence of syphilis, and that there is no hereditary tendency toward any form of disease.

Thinking it possible, from the fact that there had been paroxysms of fever, that there might be malarious complication, I prescribed some quinine, and directed the opium to be repeated again at night. The cathartics taken yesterday operated, but not freely.

December 30. No essential change; treatment continued.

December 31. The patient complains more of pain in his bowels; thinks he would like more purgative medicine. Ordered one fluid ounce of castor oil, to be repeated if necessary; other treatment as before; encouraged a liberal amount of food to be taken.

January 1, 1876. The patient is uncomfortable generally, and suffering from increased pain in the bowels, which he attributes to the fact that the oil, of which he has taken four ounces, and in addition three or four large doses of infusion

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of senna, has had no effect. Ordered an enæma of warm water and infusion of senna, to secure, if possible, a movement; suspended the quinine, but ordered the opium to be continued, as there is also much pain in the head and neck. Informed the family, on being questioned, that I thought the seat of disease at the base of the brain—that there was a tumor there of some sort, or inflammation, which probably would end in abscess. I did not know how to account for the obstinate constipation, unless by supposing it to arise from the condition of the brain. I inclined to the belief that there was an abscess rather than a tumor, and that the patient could not recover, or that recovery was doubtful.

January 2. The only change since yesterday is that the bowels have been imperfectly moved by the cathartics. The patient is exhausted, and says he is much weaker. His pulse is full, his skin cool and moist; he has no appetite; slept very little last night; complains much of his mouth; says he has toothache, affecting the first molar tooth of the upper jaw on the right side, and that his mouth is very sore. Examination revealed nothing except that the gums are somewhat swollen and rather dark-colored; no decayed teeth found. I attributed the pain to the disease in the brain affecting the nerves at their roots. Prescribed some citrate of iron with quinine and iodide of potassium; substituted bromide of potassium for the opium. Ordered, with a view of giving temporary relief, a sinapism, to be followed by fomentations to the back of the neck; ordered wine, as the patient chooses to take it.

January 4. No change of note since last record. The effects of the prescriptions made on the 2d inst. not very decided; the patient's sufferings have increased rather than diminished; the bromide failed to produce sleep. The wife called my attention to a small swelling on the left side of the forehead, which she said made its appearance yesterday. This swelling was perhaps a half inch in diameter, half oval

in shape, painless, without discoloration, and very hard. I thought it an exostosis which had escaped notice, and said I did not consider it important. The ptosis is, perhaps, more decided than at last note. Ordered the bromide discontinued and the opium resumed.

January 5. No change, except that the opium so far controlled the pain as to allow the patient to sleep a few hours during the night.

January 6. Had a rather comfortable night. Complains again of constipation, and desires to take more oil. Ordered one fluid ounce of oil, to be repeated, if necessary; ordered large enemata to assist its operation. Discontinued the opium, which, since last note, he has taken pretty freely during the day, as well as at night, and substituted the hydrate of chloral, to be taken in fifteen-grain doses every two or three hours, as might be necessary to procure rest—the dose to be increased to twenty or thirty grains, if required.

January 7. The oil operated partially after the administration of three ounces, and the use of two enemata. The patient complains of pain in the angle of the jaw, on the right side; says something is wrong with the back tooth of the upper jaw—that there is bleeding from the gums. Examination showed a livid fungoid-appearing growth behind the last molar tooth of the upper jaw, more or less firm, but still spongy, and oozing blood. It was, perhaps, as large as the tip of one's little finger, and had the appearance of an epulis, or of exuberant granulations such as are not unfrequently seen springing from the gums around decaying teeth. I expressed the opinion, although I could find no evidence of decay in the tooth adjoining which the growth was situated, that such was its nature, and that it was probably of not much consequence, except in so far as it might cause inconvenience.

No other change worthy of special notice. The chloral had a pleasant effect, but the patient says it does not control

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the pain so well as the opium. Ordered the chloral, wine, etc., continued.

January 8. The only observable change is increase in the size of the fungoid growth in the angle of the jaw, and, perhaps, more pain. The patient complains much of his mouth—says that the tumor annoys him greatly; he makes frequent endeavors, which are unsuccessful, to pull it away with his fingers. I advised him to desist, and gave him an astringent lotion, the tincture of the perchloride of iron (two fluid drachms to one fluid ounce of water), as a means of checking the bleeding and repressing the growth.

Evening. The patient requested a second visit, as his sufferings increased in the afternoon. Has fever, which was preceded by a rigor or chill. Pulse 120; rather hard. Temperature 102° Fahr.; patient restless. Pain in the head and neck increased; the head retracted. There is no apparent cause for this paroxysm.

Suspended the chloral and the iron and iodide of potassium mixture, and substituted Dover's powder (ten grains), to be repeated every two hours, until the symptoms are mitigated, and with it full doses of aconite (tincture of the root).

January 9. The fever subsided during the night. The patient slept three or four hours after midnight. Pulse 90; temperature nearly normal; pain less. The tumor has sensibly increased in size.

Afternoon. Requested Prof. Pooley to see the patient, in consultation with me. The result of the consultation was not satisfactory, the Professor not being able to form a decided opinion as to the nature of the case. He agreed with me that the symptoms arose from pressure upon the base of the brain, but was not certain as to the nature of the cause. He inclined to the opinion that it was a tumor, perhaps osseous in character, and not an abscess, as I had supposed. He did not appear to think that the growth or tumor in the angle of the jaw had any connection with the cephalic

symptoms. He supposed, as I did, the swelling on the forehead to be an exostosis, and of not much consequence. He would not interfere with the tumor in the angle of the jaw, notwithstanding the expressed desire of the patient for its removal—at least he would not interfere with it for the present, not being able to decide its character, having seen it but once. He expressed the opinion to me that it made no difference as to the plan of treatment, as he thought the patient could not recover. Agreed to see the patient again when convenient to me.

The patient masticates his food with difficulty, and says the discharge from his mouth is so offensive that it makes him sick, but we decided, notwithstanding, that we would not interfere.

January 10. This morning another swelling, presenting the same characters as that already described, was observed on the upper jaw, right side, between the first molar and bicuspid teeth. The patient perhaps more comfortable, but suffers greatly from his head and neck, and (he says) from want of food.

He is emaciating perceptibly, and is very despondent. All treatment, except opium, wine, and food suspended.

January 11. Another tumor, also on the upper jaw, but on the left side, between the first and second molar teeth, has appeared since yesterday; also one on the lower jaw, on the left side. The patient complains greatly of his mouth, from which there is now considerable and very offensive discharge of saliva, mixed with blood.

Requested Prof. Pooley to visit the patient with me again. He came, accompanied by his brother, Dr. T. R. Pooley, who is an oculist, and who wished to examine the patient's eyes, having heard me speak of the condition of those organs. We decided the case to be one of multiple sarcoma, as was not at this stage very difficult to do.

Dr. T. R. Pooley made a careful examination of the eyes

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with the ophthalmoscope, and found them to be in a perfectly normal state. He decided that the cause or causes interfering with the movements of the affected eye were external to and behind the organ, and not connected with the globe; that it was probably a sarcomatous tumor at the base of the brain.

January 12. Three or four swellings, similar to that which, first of all, made its appearance on the forehead, are seen this morning at various points on the head; also another between the two last molar teeth on the lower jaw, left side; one observed, also, on the left side of the chest, near the sternum, between the fifth and sixth ribs. The patient suffers constantly from pain, mostly, as before, at the back of the head and neck, and in his mouth. The tumor in the angle of the jaw is now as large as a walnut, and is constantly oozing an unpleasant sanious discharge. There was not much sleep last night, notwithstanding full doses of opium, and the patient's strength is much exhausted. Skin cool, pale, and moist; pulse 74, weak; tongue more furred; no appetite; face expressive of great suffering; there has been no movement of the bowels for several days. Ordered large enemata of warm water and castor oil, to be repeated *pro re nata.*

January 13. No change, except that one or two new tumors, resembling those before present, have appeared on the head. No movement of the bowels, though three enemata were administered. Ordered the enemata to be repeated. Opium as before.

January 14. The patient had a miserable night; his pain was and is intense; he slept very little; was delirious part of the night, but is quite rational now. No effect from the lavements.

Lies quite still, but is evidently suffering greatly, as he moans constantly.

Evening. The patient had, during the afternoon, again a rigor, followed by fever and increase of suffering. Pulse 120;

temperature 104°. Two new tumors have appeared on the head to-day. The lavements produced no effect on the bowels. Ordered some aconite, and continued the opium.

January 15. The fever has, in a great measure, subsided. The patient is quiet, and says he suffers less, though still severely, from pain in his head and neck. He speaks slowly, but with perfect enunciation. He is said to have had something like a convulsion last night, about eleven o'clock, during the fever. The spasmodic movement seemed to be confined mostly to the left side.

Evening. No change, except that the patient has lain in a semi-stupor during the afternoon, since 2 o'clock. He seems to be somewhat deaf. No movement from the bowels.

January 16. Is suffering a great deal this morning. Has been on his feet attempting to walk the floor, sitting on a chair and lying on the bed alternately; he is now lying across the bed, with his head hanging over the side, and says he is easier in that than in any other position he has assumed. The pain is still mainly confined to its old locations, the head, neck, and mouth, but he also complains bitterly of pain in his bowels, which have not been moved since the 12th. The bladder is somewhat distended, and there are frequent efforts at micturition, which are only partially successful, small quantities of urine being voided in jets with each effort. He vomited once during the night, but he is not now suffering from nausea.

Ordered a large enema to be administered, with the hips raised, and a warm fomentation to be applied over the region of the bladder.

Evening. No special change, except that it is evident that the patient is failing fast. The enema had no effect, but the bladder was evacuated during the afternoon. Ordered medicines as before, and the stimulant.

January 17. No change for the better. Had very little sleep during the night, but slept two hours this morning.

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The pain is, perhaps, not so severe. Fourteen tumors altogether are now to be observed on the head and neck, resembling each other very closely, differing only in size. In this respect they vary from a mere point to the size of a half pigeon's egg or larger. They are half oval in shape, somewhat flattened, without discoloration, are hard, unyielding, and not sensitive. They give the scalp the appearance of being studded with bosses. The abdomen is tympanitic and somewhat tender. The bladder is again somewhat distended, and the patient complains that he can not void his urine.

Ordered the fomentation to be reapplied to the abdomen, and the opium to be continued.

Evening. The patient suffering more acutely than this morning; has fever, pulse 112; temperature 102°; is very restless; is delirious, and makes pitiful moans. The bladder is now considerably distended, but the patient does not seem to suffer especially from it. The end being evidently near, nothing was done except to increase the quantity of opium, which was ordered in full doses, to be repeated as often as necessary.

January 18. The patient, after passing a terrible night, died at 9 o'clock this A.M. The fever continued until morning, when it subsided, and death ensued seemingly from exhaustion.

AUTOPSY.

Examination five hours after death. Body pale and considerably emaciated. Hypostasis on posterior and dependent portions. Rigor mortis not decided. On the removal of the scalp, the tumors before mentioned separated with it, leaving bloody depressions on the pericranium corresponding in size with their bases. On the removal of the calvarium, the dura mater was found studded with tumors, to perhaps the number of forty, varying in size, like those in the scalp, from a mere point to that of a filbert. They were, perhaps,

more flattened than those on the external surface of the skull, and of rather softer consistence. On removal of the dura mater, its inner surface was found to present spots corresponding to the tumors on its outer surface. The pia mater appeared healthy, except that it was congested. On removing the brain, a tumor was found attached to the left side of the body of the sphenoid bone and the apex of the petrous portion of the temporal bone, and pressing upon the third, fourth, and sixth nerves at their passage through the dura mater. This tumor was grayish red in color, somewhat gelatinous in appearance, but of rather firm consistence. In shape, it was irregular and somewhat flattened. Its size is that of a pigeon's egg. Two smaller tumors were found, one on either side, near the middle of the horizontal portion of the lateral sinus. Another was found near the mastoid foramen. All these were on the inner surface of the dura mater. On the cranial surface of the dura mater another was found in the groove for the lateral sinus. The first mentioned was situated over the cavernous sinus; the second near the descending portion of the lateral sinus; the third and fourth near the lateral sinus. All were in the immediate vicinity of blood-vessels, veins; all had about the same color and consistence, grayish red, somewhat gelatinous, but still firm. That attached to the sphenoid bone was, perhaps, firmer than the others, and much the largest.

In the centre of the middle fossa, also external to the dura mater, was another tumor, which extended into the mouth through the spheno-maxillary fissure, with its largest portion in the mouth, behind the teeth, extending into the angle of the jaw and outward, displacing the cheek somewhat. This was much the largest of any yet observed. This, it will be remembered, was the first tumor observed in the progress of the case.

On the left side a depression was found on the lower surface of the middle lobe of the cerebrum, underlying the ex-

tremity of the middle horn of the lateral ventricle, and agglutinating the pes hippocampus to the parts above it to the roof of the middle cornu. This depression was undoubtedly caused by the upward pressure of the tumor attached to or springing from the sphenoid bone. The substance of the brain was healthy throughout. Springing from the ensiform cartilage was a tumor three-fourths by a half-inch in diameter.

On opening the chest three tumors, of small size, were found in the middle mediastinum, on its right wall. On the pleura costalis two tumors were found on either side, situated over veins. Several were found on the visceral pleura on both sides. Two were found on the inner surface of the pericardium in its left anterior portion. Lungs healthy, except at the apices, where there were cicatrices, evidently old, resulting apparently from the discharge of tubercle and slight anthracosis. No deposit of recent tubercle discovered. The parietal peritoneum was healthy, as was the visceral, except on the falciform ligament of the liver, where there was a small tumor, and in the vesico-rectal fold, where there was a tumor larger than a hen's egg, surrounded by twenty or more of smaller size. These tumors seemed to spring from the tissues underneath the membrane, and to have pushed it inwards in their progress without having involved its continuity. The mesenteric glands were considerably enlarged and indurated, and at one or two points in their midst were some small tumors in the immediate vicinity of veins.

The stomach and intestines were healthy. The intestines were considerably distended with faecal matter. The bladder and urethra were healthy. The bladder contained a pint or more of urine. The liver, spleen, and kidneys were in the normal condition.

Microscopic examination showed the tumors to be round-celled sarcoma, without admixture.

I had the assistance in the post mortem of Doctors Frank-

enberg, Pooley, and Wheaton, to whom I am indebted. I am especially indebted to Doctor Frankenberg, who made the microscopical examination.

Sarcoma is not a rare disease; but it is not common to see it in the multiple form, nor do we often observe a case presenting more interesting points than that which is the subject of this report.

ART. X.—*Strangulated Inguinal Hernia, Complicated by Pregnancy.* By WM. H. VAN WYCK, M.D., Visiting Physician to Charity Hospital, etc.

Mrs. R., æt. 39. Married; native of England. Personal history good. She has had thirteen children, all of whom have died in infancy and childhood except three, who are still living. She has been troubled by a hernia, which, according to her account, was caused by lifting, for the last nineteen years. Never has had any difficulty in reducing it; has not worn a truss for some time. The patient was in the sixth month of pregnancy.

October 10, 1876. At 3 o'clock in the afternoon, while walking, the hernia came down, and she felt some pain; when she tried to reduce it she failed to do so. Pain increased, and at 8 P.M. she began to vomit, and sent for me. I saw her at half-past nine. She was retching and had constant nausea. The whole of the lower part of the abdomen was very sensitive to pressure. Vomiting had not been stercoraceous at any time.

Upon examination I found in the left inguinal region an oval tumor, as large as a duck's egg, soft and doughy to the feel, and dull on percussion.

An attempt at reduction brought on strong pain resembling that of labor, but a vaginal examination revealed that the uterus was quiet. Ordered morphiæ sulph. gr. $\frac{1}{3}$ every three hours, beginning at 10 P.M. In half an hour she vomited.

October 11, 1 A.M. She took a powder, and vomited in ten minutes afterwards. 2:30. Another taken and retained. This relieved her of her pain and nervousness. 6 A.M. Another powder. 11 A.M. Tumor same size, patient quiet and comfortable. By taxis the tumor was reduced to one-third of its original size. 2 P.M. The tumor is again as large as ever. Patient suffering more pain, and more sensitive to pressure over the hernia.

At 4 P.M. Dr. J. L. Little was called in consultation, the patient was etherized, and taxis tried by Dr. Little, but without any good effect. I then proceeded to operate, by making an incision about four inches long over the hernia, and carefully cut through layer after layer, until I came down to the sac, upon opening which a small quantity of bloody serum escaped.

A small knuckle of intestine was found protruding, and a constriction at the neck of the sac. The abdominal ring and the inguinal canal were free. The intestine was in good condition, congested, and of a cherry red color. The constriction was divided, and the gut readily reduced. No hemorrhage, no adhesions. The wound was closed by six interrupted sutures, compress applied, and retained in place by a spica bandage, and $\frac{1}{3}$ gr. morph. sul. ordered.

9:30 P.M. Pulse 104, temperature 99°; patient feels comfortable; no nausea. Ordered morph. sul. sufficient to keep the patient comfortable, and beef tea.

October 12. Patient took a third of a grain of morphine at 2 A.M., 7 A.M., $2\frac{1}{2}$ A.M. At this time her pulse was 88, temperature $98\frac{3}{4}$°. She did not sleep well last night, but had no pain or nausea. Abdomen tympanitic, but gives her no trouble. Has made water twice since the operation. Ordered liquid food ad libitum, and morphine in sufficient quantity to keep her quiet and entirely free from pain. 9:15 P.M. Pulse 84, temperature $98\frac{1}{2}$°; patient doing well in every respect; has slept some; continue treatment.

October 13. Powder at 1 A.M. and at 6:30 A.M. 10 A.M. Pulse 84, temperature 98½°. Bowels moved a little, movement accompanied by a great deal of flatus, which made her feel more comfortable. Abdomen still tympanitic, appetite poor. Morphine continued, gr. ⅓ every fifth hour. Left labium a little swollen.

October 14. Bowels moved freely after an enema; pulse 84, temperature 99½°; appetite poor. Dressings removed, wound doing well. Ordered morph., gr. ⅓ every 6 hours, also 5 grs. of sulph. quiniæ three times a day. Pulse weak; is to have wine, beef tea, and milk ad libitum.

October 15. Pulse 90, temperature 98½°. Appetite continues poor. Slept well last night, pulse stronger to-day, tongue clean. Sutures all removed, the wound less united at its upper portion. Quinine continued, morph. ⅓ gr. at night.

At 4 P.M. she began to complain of pain, and took ⅓ of a grain of morphine. 10 P M. Has paroxysmal pains in back and abdomen at intervals of from seven to ten minutes; at 10:45 took ⅓ gr. morphine.

October 16, 12:30 A.M. Pain nearly gone, but the os uteri is slightly dilated, and the child's head low. Another compress was applied over the seat of the hernia; to take ⅓ gr. morphine every 4 hours. 10 A.M. Patient has slept well since morning; pulse 81, temperature normal. No pain; morphine continued every five hours, quinine stopped; bowels moved freely yesterday afternoon.

October 17. Pulse 76, temperature 98½°. Slept well; appetite better. She says she feels better. The skin around the wound has an erysipelatous redness, and the tissues feel hard and brawny. A ligature which had been applied came away to-day. The wound is not united as much as it appeared to be on the 15th. Continued treatment.

October 18, 10 A.M. Pulse 76, temperature normal. Wound looks much better; appetite good. Morphine ⅓ gr. every six hours.

October 19, 9 A.M. Bowels moved yesterday afternoon after an injection. Patient feels better to-day. Pulse 76, temperature normal; appetite good. Treatment continued.

October 20. Pulse and temperature normal. Wound healing kindly. Patient feels well. Ordered morph. sul. gr. $\frac{1}{6}$ every six hours. Allowed to sit up a little while.

October 21. Pulse and temperature normal. Appetite good; bowels moved slightly yesterday; to take $\frac{1}{3}$ gr. morphine at night.

October 24. Wound has healed completely, except a slight spot at the inner angle. She was directed to put on her truss whenever she got up, and discharged from treatment.

December 26, 1875. Mrs. R. was delivered of a fine, well developed boy.

In reviewing the case, I have no doubt that the quinine which she was then taking in large doses was the cause of the threatening of miscarriage which occurred at one time, and not any irritation or other effect of the operation.

ART. XI.—*A Case of Hæmacelinosis, succeeding nerve shock.* By N. C. REED, M.D., Columbus, Ohio.

On Saturday, April 15, 1876, I was called hurriedly to see one John Frazer, a young man, said to have fallen from a roof. Upon arriving at the house to which he had been taken, I found the patient to be twenty-six years of age, rather muscular and strong. He had fallen *through* the roof of the "round-house" of the Pittsburgh, Cincinnati, and St. Louis Railway. This roof is constructed of sheet-iron, being nailed upon, and parallel to, the rafters, the rafters being so far separated from each other as to be reached by the breadth of the sheets. A number of years of exposure to the weather had so oxidized the iron that its strength was not sufficient to support the weight of the men who had ascended the roof

to extinguish a fire which had caught in one of the ventilators.

Eye witnesses state that Mr. F. came through the roof feet foremost; that the first object struck in his descent was the smoke-stack of a locomotive, which was standing directly beneath him; that he bounded thence to the foot-board of the same machine. This served to turn him over in such a manner that in striking the floor he struck on the right side of his face and right shoulder. He then bounded several feet away and into the next ash-pit. These pits are three and one-half feet deep, and the bottom at least twenty-five feet from the roof.

The patient was taken up in a state of unconsciousness and carried home, where I saw him within thirty minutes after his accident. He was sitting up at the table, washing his very much swollen, bruised, and bloody face. A little blood was oozing from his nose. There was a contusion over the right malar bone, and corresponding zygoma, extending upward over the temporal region. A small lacerated wound was on the bridge of the nose. Swelling had completely closed the right eye, and the integument corresponding to the swelling was deeply ecchymosed. There was no injury done to the eye itself, nor was there any ecchymosis of the conjunctiva. He answered all questions intelligently, although his mind seemed a little lethargic and slow to comprehend the questions put. He realized that he was at home, but was at a loss to know how he got there—whether he was carried or walked. When asked to lie down, he rose to his feet and walked into an adjoining room unaided, and without staggering. His pulse was 74 per minute; complained of no pain, aside from a sensation of stiffness of the muscles of the neck and shoulders. In fact, little injury could be discovered in his case, more than the shock to the nervous system. Cold applications were made to the head and face, and the epistaxis ceased very soon. One-fourth

grain doses of morphia were ordered at intervals, as symptoms required.

Sunday, April 16. Saw the patient at 9 A.M. He had slept well during the night. Complained of a slight headache and the continued stiffness and soreness of the neck and shoulders. No hemorrhage had occurred, although he had twice during the night vomited coagula of blood. I suppose this to have been blood that had been swallowed the evening before, as he was carried home lying upon his back on a board, while his nose was yet bleeding. Expressed himself as feeling very well, except the pain in his head, neck, and shoulders, upon attempting to move. Pulse 80. Countenance as placid and smiling as the condition of his face would admit of. Gave

℞ Pot. brom., ʒiij.
Chloral hydrate, ʒj.
Aqua cinnam.
Sqr. limon., *a a* ʒii. M.

S. A dessert spoonful every two hours.

Saw him again in the evening, and found him feeling better, the cephalalgia having been removed. Has had no emesis. Part of the afternoon had been spent in walking in the yard. Still complaining of a little pain in the neck and shoulders, but not so severe.

Monday, April 17, 9 A.M. Found my patient sitting in a room adjoining his bed-room. Mind as usual—after first visit perfectly clear. Pulse not counted, but near normal. Appetite, which had been poor, a little improved. For the pain in neck gave a liniment of aconite and chloroform.

On Tuesday every symptom pointed to a speedy recovery. Appetite good; free from pain; and the time spent between lying down, sitting, and walking out.

Wednesday, concluding no further treatment necessary, discharged my patient.

On Friday, 21st, at 6:30 A.M., a messenger appeared at my

door, stating that my patient was bleeding at the nose. Going at once to see him, I found his bleeding to be rather profuse, and had been for two hours and a half. The loss was between two and three pints. Attempted at once to stop the hemorrhage by injecting a strong solution of Monsell's styptic, and, after repeated trials for some time, failed. Without further delay, I resorted to the operation of plugging the nares, after which the hemorrhage ceased. In about two hours, however, he began spitting blood, but, supposing the posterior plug was leaking a little, paid no attention to it. Calling at 4 P.M., I for the first learned of his spitting blood, and upon examination discovered the blood to be escaping from the gums. For this the styptic was more efficient, and with it the hemorrhage was controlled. His pulse was 70, and, considering the amount of blood lost, strong. Had no pain, and was cheerful. Had just come in from walking in the yard, although feeling a little weak. His thirst was very moderate, which was relieved with iced milk and lemonade.

Saturday, 22d, 8.30 A.M., found the patient quite feeble, with a pulse of 48 per minute. About six o'clock had passed from the bladder a quart or more of very bloody urine. Up to this time the secretion of the kidneys was perfectly healthy. Skin was cool, moist, and pallid, that of the face of a greenish yellow color, resulting from the fading ecchymosis. Respiration 14; not labored, but quiet and easy. Gave pulv. opii., gr. $\frac{1}{4}$; carb. ammon., gr. iiss; ferri sub. sulph., gr. i, every three hours. At 11 A.M. the symptoms were not improved. Respirations 12 per minute. Has had two more discharges of blood from the bladder, but not so large as the first one. Pulse 46. Characteristic petechia of the hæmacelinosis had appeared on the lower extremites and body. The spots were more numerous in the lumbar region of the back than elsewhere. Extremities cool. Able to converse intelligently, but not so inclined.

At 11:45 A.M. called Prof. Hamilton in consultation, at which time no difference in his condition was noticeable, except the additional symptom of a slight exophthalmos of the right eye. There was no dilatation of the pupil of either eye. No symptoms of cerebral compression could be seen. Could talk and answer questions well. His mind has shown no disposition to wander since the elapse of an hour after his fall. Skin cool, and covered with perspiration. Pulse 45, and very feeble.

At 3 P.M. found the symptoms very materially changed. The pulse had risen to 82 per minute, but very weak. Respirations heavy, labored, and stertorous; 10 per minute. Extreme carphologia and delirium. Mind wandering to very different objects. Asks for his tools, hammer, etc., one moment, and calls for a dispersion of dogs and cats the next. Has had a very copious discharge of blood from the bowels since last saw him. Exophthalmos of the right eye very marked, with great dilatation of its pupil, while the pupil of the left eye was contracted. Complete paralysis of the left side of the body. All movements were made with the limbs of the right side, the arm being extended in different directions, pulling at the bed-clothes and clutching at imaginary objects. Any thing placed in the hand was grasped very firmly for a few seconds, and then dropped. These symptoms continued until about five o'clock, and half an hour later he died quietly, without a struggle.

A question of some interest arises in regard to the cause of this active and fatal purpura, especially when we come to note the fact that this patient was not subject to one of the many causes given of this disease. Upon inquiry, I learned that he could not have hæmatophilia. He lived in a healthy locality, and suffered from none of the general disorders of nutrition. He was not given to luxurious living, but strictly temperate, healthy, strong, and active.

Could this disease have arisen from the nerve shock ex-

perienced? If so, would it have lain inert for seven days after the shock was produced?

ART. XII.—*A Case of Vesical Calculi in a Female.* By J. M. WHEATON, M.D., Professor of Anatomy, Starling Medical College, Columbus, Ohio.

Mary H., aged 55, colored, native of South Carolina, was admitted to St. Francis Hospital June 11, 1875. She stated that she was suffering from cancer of the womb, and was placed in a room occupied by incurables, where I saw her on June 14. She was then weak, somewhat emaciated, with a pulse of 92. She stated that the disease had first appeared while she was living in Memphis, Tenn., nearly five years since, and that there, at Nashville, Tenn., and at Lancaster, Ohio, her present residence, she had been under medical treatment without benefit, and had come to the hospital to die.

There was constant dribbling of very fœtid urine, and complaint of burning, lancinating, and bearing-down pain in the hypogastric region. For various reasons, connected with the patient's surroundings in the hospital, a careful physical examination of the case was not deemed advisable at the time. The treatment was anodyne, stimulant, and disinfectant.

On the morning of the 21st she presented me with a urinary calculus, which she stated had just passed, after a night of much suffering, and that her sufferings were still unrelieved. An examination was made, and a calculus was found engaged in the urethra, so far advanced as to dilate the meatus to the extent of one-third of an inch. Chloroform was administered, and an attempt made to extract the stone with forceps, which failed by reason of the crumbling of the stone. Two fingers were then introduced into the vagina, and by pushing with these alternately from behind, the stone was forced out. A digital examination of the

uterus and bladder revealed no disease of the former, but, as might be expected, a greatly contracted bladder, with thickened mucous lining. No remaining calculus discovered. Instant relief followed.

Twenty-four hours later the patient had considerable control over the bladder, and in the course of a week the power of retention and expulsion were entirely regained, at which time she went to her home, and has since been reported as well.

Most of the interest of this case attaches to the calculi. The first stone, which was passed without assistance, was of an irregular and somewhat flattened oval or pear shape, $1\frac{5}{8}$ inches in length, 1 1-16 inches in greatest transverse diameter, $\frac{3}{4}$ inch in width, 4 inches in circumference longitudinally, 3 inches in its greatest transverse circumference. The latter measurement indicates the amount of dilatation necessary to effect its passage. It had evidently been much larger, as its whole surface was eroded, and in places several layers of stratified deposit were exposed. Its weight was four drachms.

The second stone was much larger, though of less specific gravity than the first, weighing five drachms. It was irregularly truncated at each extremity, with an elliptical concavity on one surface. In fact, it presented much the appearance of the posterior three-fourths of the os-calcis as seen from the outside. Its length was 2 inches, transverse diameter $1\frac{1}{4}$ inches, longitudinal circumference 5 inches, transverse circumference $3\frac{3}{4}$ inches. This stone was not eroded, and had probably been recently encysted; otherwise it would have presented some indications of friction, as did the first. At the same time it is difficult to explain how the first became so worn, except on the supposition that there had been still another calculus, which had previously escaped, and of which there was no history, or that the second stone had become encysted and increased in size subse-

quently to the erosion of the first. Both stones were of the same chemical nature—triple phosphatic. The nucleus of the first stone was found on section to be central, that of the second on one side, near the concavity mentioned.

Doubtless stones as large or larger have passed spontaneously or been removed *per vias naturales.* Gross, in the last edition of his Surgery, mentions several without measurements, and leaves somewhat in doubt as to the manner of their extrusion.

I am indebted to Dr. Pooley for the following from Coulson, who says (page 165): "When a calculus descends from the kidney into the bladder, or when a nucleus by any accident is formed in that viscus, in the female, it is most usually expelled during micturition, by the mere efforts of the bladder to empty itself, and it is surprising to what an extent the female urethra is sometimes spontaneously distended. Tulpius (1. 111 obs. 7) relates the case of a lady, aged 89, who spontaneously passed a calculus per urethram weighing three ounces and two drachms; but it appears to have paralyzed the sphincter vesicæ, as she was ever afterward troubled with incontinence of urine."

It is to be regretted that, as the amount of dilatation is the chief point of interest, measurements were not given.

EDITORIAL.

It has been said that a book that needs an apology should never be published, and we presume the same must be true of a medical journal. Nevertheless, in introducing a new candidate for professional favor among the multitude of medical periodicals already in existence, a few words of explanation seem to be appropriate. Columbus for thirty years past has had a medical school—Starling Medical College—and, for sixteen years of that time, the old Ohio Medical and Surgical Journal was published here, making it, to some extent, a medical center. The old journal has been discontinued for the last ten or twelve years; and, though the college still remains, in a condition of greater prosperity than ever, no other has arisen to take its place.

There are no medical journals published in the State, except two in Cincinnati, and they by no means so fully meet the demand as to preclude the success of another.

Central Ohio is rapidly increasing in population, wealth, culture, and importance.

Pari passu with this growth, of course its medical profession is advancing in numbers and intelligence, and for some time past has felt the need of an organ of its own. This need had been expressed to the editor, and many tentative schemes were on foot to meet it, but none seemed to promise immediate fulfillment; wherefore, we have taken the field, and essayed to supply what many felt to be a real desideratum.

We know no parties or cliques in medicine, and take cognizance of no conflicting or warring interests. To cultivate the most extensive of sciences, and the most beneficent of arts, is enough for us.

Among all the agencies that have contributed to the recent astonishing advances in medicine and surgery, none have been more influential than its periodical literature. In the pages of the journals all advancements, novelties, and improvements find an immediate record, by which they are brought to the attention of the great mass of the profession, by whom they are to be tried, and from whom the verdict of their worth or worthlessness is to come. Here are gathered the immense clinical experiences

of the profession, from which generalizations are to be drawn, and which constitute the material, in rough, from which our more elaborate literature is constructed.

To this rich field all have access, and to it all should be contributors. Bacon nobly said, "I hold every man a debtor to his profession," and this is most true of the medical man. Every one may, and should, contribute his mite to the general stock. Any fact or case well observed, and simply and accurately described, is valuable, and thousands such are lost for want of a record. This is a mistake on the part of the members of the profession. They seem to think great acquirements, brilliant genius, and high position must qualify the writer for the journals. But, though all these things are desirable, they are not the best qualifications, which are those within every man's reach: acute observation, and plain, truthful delineation.

To the medical profession at large—but more especially to that of Ohio and the West—we offer our pages, and would urge them to make free use of them. The Journal is theirs, not ours. We are only their servants, and the ultimate success of the enterprise must rest with them. Of course, we need pecuniary support, and have no hesitation in asking every one who receives this number to forward the extremely low price of subscription for one year, and to bring the Journal to the notice of their friends. This first number has been somewhat hastily prepared, and may present some imperfections, which we shall strive hard to avoid in the future. There are a multitude of delays and hindrances incident to a new enterprise of this kind, which not every one can fully appreciate, but for which we hope our readers will make allowance. The article on the spectroscope in practical medicine, promised in our prospectus, could not be got ready for this number, but will appear in our next. We offer in its stead a most able paper on Syphilis of the Nose and Larynx, by Dr. CLINTON WAGNER, of New York, which will amply repay perusal, and is a valuable contribution on the subject. We have also articles promised for the next number from Drs. W. A. HAMMOND and JOHN C. PETERS, of New York. We are also trying to perfect an arrangement by which our readers will be presented in each number with a medical letter from New York, giving all the news and gossip of the medical world fresh from the great metropolitan center. We did expect to present such a letter in this number, but an unforeseen accident frustrated our design.

From time to time we shall endeavor to incorporate other new features of value, and thus keep our Journal equal in interest and variety with the best in the country. With these few words of introduction we close, and commit our venture to the judgment of an enlightened and liberal profession.

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REVIEWS.

Review of the Annales Medico-Psychologiques for the first quarter of 1876.

The Annales Medico-Psychologiques, edited by Baillarger and Lunier, is a bi-monthly journal, with an average of 150 pages per number. The present year is the thirty-fourth of its publication. Two volumes are published each year. In addition to the distinguished editors-in-chief are several gentlemen who assist in the labor of its management, equally noted, as Brierre de Boismont, Calmeil, Constans, Dumesnil, Paul Janet, Legrande du Saulle, Lelut, Maury, Moreau, Rousseln, and Trelat. It numbers among its list of contributors some of the best writers of France. The table of contents shows a perfect system in the arrangement of its material—first, original articles; second, reviews, French and foreign, each of which divisions are sub-divided. The journal is devoted to insanity, the neuroses, and that part of legal medicine pertaining to insanity. This journal is imported by several houses; we receive it, as well as all of our foreign journals, from E. Steiger, of New York. The cost of this, the Annales d'Hygienie, and of the Archives de Physiologie, is the same—ten dollars per year each.

The January number opens with an article by Dr. Taguet, of the Asylum of Ville-Evrard, entitled *Les Alienes Persecuteurs*. This class of individuals, says the Doctor, enjoy their liberty until their eccentric and strange conduct excites the idea of their mental unsoundness. Doubting nothing, they accept and embrace, with all their characteristic rashness, without an inquiry as to their intellectual ability, any pursuit. They rely upon their fine manners, their education and cultivation. Their reason does not appear to be affected; they reason in the main correctly, but exaggerate and misrepresent to suit their desires. When they embrace an idea they pursue it to its full extent; nothing can restrain them. They have such confidence in their own ability and the value of their views, that all who oppose them are considered enemies. This self esteem ends by a degeneration into a true delirium, when they commence to attract attention.

The Doctor then reports at length five cases. He says they do not constitute a special form of insanity, as we see the same symptoms in many

different forms. He is content to cite two: megalomania (*i. e.* greatness), and general paralysis. All cases coming under his view of the subject are those whose ideas are exaggerated. He makes a distinction in these cases between those of true general paralysis and the delirium which bears more resemblance to hypochondriâsis, those with exalted ideas, but who complain of all the world, and are extremely unfortunate in their own estimation of their condition. He mentions what so many writers do at the present time concerning paralytics: *an apparent recovery, of variable duration,* during which they insist upon their release if in restraint.

The second article is by Dr. Ponza, of the Asylum of Alexandria, upon the *influence of colored light in the treatment of insanity.* His ideas were first drawn from some captain of the English marine, who fattened fowls and animals to an extraordinary degree under the influence of *violet* light. Fruit and vegetables were also developed in like manner under violet glass. He submitted his views to Father Secchi, of the Observatory of the Roman College. His response was as follows:

"The idea of studying the disorders of the insane in connection with magnetic perturbation and colored light, above all the violet rays of the sun, is of remarkable importance, and I believe well worthy of being cultivated. At present we have not, so far as I know, any observations upon the influence of colored light, that is, violet solar light. It seems to me important that such observation should be made. Violet light is, beyond doubt, that which acts upon vegetables. I know not whether it is as active upon animals.

"The practical solution of the problem can be made by reducing to experiment upon the insane and those attacked with nervous disorders the action of these rays, for we can not create violet light in any other way than as we subtract it from the red, yellow, blue, etc.

"It is not possible to condense this special light more or better than it is condensed in the natural light of the sun; it is also very difficult to find a substance that will let pass only the violet rays. A light much richer in violet rays than sunlight is the electric, but this is practicably inapplicable.

"The only practical attempt we can make is to filter, so to speak, the solar light in a manner to separate all the other rays, leaving only the violet, the most refrangible. This deserves to be tried, not only to satisfy pure curiosity, but also because from the point of view of germination we will arrive at important results.

"This violet tint has I know not what, melancholic and depressive, which physiologically depresses the mind. It is without doubt for this reason that poets have clothed melancholics with violet garments.

"Perhaps the violet light calms nervous excitement with the unfortunate maniacal. And as physically nothing can assure success unless it acts physiologically, it seems proper to attempt the experiment.

"It is necessary, first, to be assured of the quality of the glass most proper, the best fitted to receive the sun's rays. For this it is necessary to cause a solitary ray to pass across a prism, and with this same ray take some photographic proofs.

"The walls of the chamber which serve for the experiments should be painted of the same color as the glass we place in the windows. In order to favor the action of the solar light we should have the greatest possible

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number of windows so arranged that they will receive directly the rays at different hours of the day.

"In order to execute this advice scientifically, I would propose that you cause the insane who are submitted to this experiment to be placed in chambers adorned east and south with walls colored to represent the glass, and of the same size."

Those having a knowledge of the properties of light will readily understand this, and the application made by Dr. Ponza which he here reports. We add, light, as emitted from the sun, is apparently white. White light may be separated into seven different kinds of rays or colors. When you pass a ray of light through a prism, this separation is made, those that are refracted least falling lowest. This order is as follows:

——————— Violet.
——————— Indigo.
——————— Blue.
——————— Green.
——————— Yellow.
——————— Orange.
——————— Red.

This order of the rays is preserved, no matter how you turn the prism. These rays are not all equally luminous. Wells puts this comparative intensity as follows: Red, 94; orange, 640; yellow, 1000; green, 480; blue, 170; indigo, 31; violet, 6.

He also states that red is, in battle, the most fatal color, and a light gray the least so. Soldiers are shot, according to the color of their dress, as follows: Red, 12; dark green, 7; brown, 6; bluish gray, 5.

But to return to our paper: Dr. Ponza carried out the instructions of Father Secchi. He colored the walls the same tint as the glass of the windows, and prepared, also, a sleeping-room. In these he placed a victim of melancholia, who for a long time had been depressed, taciturn, and eat rarely when left to his own inclinations. He says: "Three hours after he was installed in this chamber I visited him, and, to my great surprise, I found him smiling, gay, and he asked me for something to eat, which was soon given him." He follows with a few other cases, then calls attention to works upon light (French and German publications), but remarks that they contain no researches or observations in common with the above.

The next article is from the pen of Dr. Adrien Fevre, physician to the asylum for the insane at Armentieres, upon the "Alterations of the Cutaneous System in Insanity." It fills twenty-three pages of this number, and twenty-eight of the next. From its extreme length, we shall be able to give but an imperfect idea of what the writer presents.

He states, in an introduction, that no physician who has devoted his at-

tention exclusively to the insane but what soon perceives an infinite variety of physical evils upon which the disorder of these unfortunates is based. Each day which passes leads to the discovery of some disorder in the functions of the organs of these individuals which astonishes the observer, and which contributes more towards raising a portion of the veil which still leaves in the shade many of the great truths of mental pathology. * * * For a long time we were engaged with the insane as with psychial disorders. Since scarcely fifty years we have extended the sphere of our observation. It is not sufficient to study psychial states; we must explore the whole field of pathology.

CHAP. I. *History.*—The Doctor says: At the onset of our career, while yet *interne* at Charente, our attention was often drawn to the numerous alterations that the cutaneous system presented with persons insane. While adjunct physician to the public asylum of Toulouse, he entered earnestly upon the labor of observing carefully the great number of skin diseases in this vast refuge of the insane. Esquirol says "the affections of the skin deserve as fully our attention, as the insane are subject to these affections." He says Torry, Slibert, Frank, cite cases in which these conditions are productive of insanity. Devergie assures us that there is an intimate connection existing between these cutaneous affections (*dartreuse*) and nervous disorders. Guislain, Bazin, Marcé, Vulpian and Charcot, Herard, Bilrod, Depouy, Arthand, Lombroso, Baillarger, Lunier, and others he names, are engaged in investigating this subject. Among these are Hebra, of Vienna, and Gigot-Suard, whom he cites as authority for the relation existing between skin diseases and insanity. He defines the word *dartreuse*, which he uses often, to be synonymous with *herpes*.

CHAP. II. *Description and Symptomatology.*—The skin, he says, has not, as every one knows, with the insane, the proper hue of health, and varies according to sex, age, temperament, climate, and profession. In insanity the skin undergoes a general alteration, and can assume forms, aspect, and color the most varied and diverse. He devotes several pages to the forms peculiar to the various forms of insanity. He has observed with the insane boils and carbuncle, erythematous patches, herpes, pityriasis, eczema, impetigo, psoriasis, pemphigus, ecthyma, erysipelas, and the different varieties of acne. He saw in the asylums but one case of ichthyosis, and one of elephantiasis grecorum.

Writers have regarded skin diseases as a prolific cause of insanity. Many distinguished writers regard the insanity as the result, and not an attendant or accidental complication. When insanity precedes, as it so often does, the appearance of the cutaneous disorder, they regard it due to *suppression* of the skin disease. But these diseases are observed where there is no insanity. Insanity is often the expression of the general con-

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dition of the nerve centers, as are also these affections—the one showing the influence upon the intellectual, the other those which preside over vegetative processes.

CHAP. III. *Development and Course of Cutaneous Affections with the Insane.*—Dr. Fevre says of the development: We have a firm belief that the affection of the skin is consequent upon the general affection of the nerve centers. He does not agree with those writers who make the mental trouble secondary to the cutaneous. This seems to me correct. As well might we declare the sloughing and bed sores of some forms of disease their cause, as to regard an affection the *result* of diminished vitality the cause of such loss of vital power.

The Doctor regards the seasons as bearing some relation to these affections, spring being a period of greatest frequency.

CHAP. IV. *Cause.*—Many writers, says our author, attribute as causes of the cutaneous affections bad hygienic conditions of asylums. He says this is not true, for we encounter them with rich and poor, with those well cared for and the opposite. Bad hygienic conditions, no doubt, nevertheless, facilitate the development of cutaneous diseases. He then speaks of climate, season, sex, *heredité*, the variety of insanity, condition of the nervous system, as sympathetic influences, etc.

CHAP. V. *Treatment.*—Nine pages are devoted to general observations upon this part of the subject. He speaks of cataplasms, as of flax-seed, flour, or starch; also, of a pommade of calomel in cases of furuncles and anthrax; liniments, oils, collodions, washes, baths, alcoholic lotions, lotions of potassa, chloral, etc. Internally, arsenic, tonics, etc. Nothing being suggested more than what has been employed by the profession in similar cases, we make no lengthy abstract.

Under the head of MEDICINE LEGALE is a report of a case of alcoholism, with ideas of persecution and incipient demency: Guerard Nicolas, by Drs. Sisteray and Delaporte, of the Asylum of Mareville.

Next follows an article by Dr. Auzouy, of the asylum at Pañ, upon allowing insane to depart from the asylum as an experiment, where the cure is apparent, permitting the return without formality upon the return of symptoms of insanity.

We have also a report of the Medico-Psychological Society. The general secretary presented, at the session of November 15, a work by Dr. Seguin, of New York, upon *Cl nical Thermometry.* Other works, journals, etc., were presented. Sixty-eight pages are devoted to the transactions in this number, and thirty-one of the March number.

Abstracts and reviews close both numbers. These are of German, Italian, and English journals and foreign works. We notice the name of Dr. Hammond, of New York, as author of a pamphlet received.

The March number contains as its first article a "Contribution to the Study of Tuberculosis with the Insane," by Dr. Cullerre, of the asylum at Auxerre. He says this disorder has caused, for many years, from 20 to 25 per cent. of all deaths in the asylum of Auxerre. Divers observers give the proportion as 1 in 10, 1 in 8, 1 in 6, 1 in 5. Dagonet found of 428 deaths 109 were due to consumption. The principal form is chronic pulmonary tuberculosis. He gives reports of fourteen cases with post mortem observations. He sums up as follows: In general, tuberculosis has no influence upon the course of insanity, it having, in general, reached demency before the development of tuberculosis.

This number contains an article (seven pages) upon *Spontaneous Troubles of the General Sensibility*, by Dr. Taguet of the Ville-Evrard. Five cases are detailed with observations.

Also, this number contains a report of "the Mental State of Louis Cerard," an imbecile accused of arson.

The German medical journals for the last quarter contain many valuable articles. Two numbers of the Archiv für Psychiatrie und Nervenkrankheiten have been issued. The first contains 352 pages, with five fine plates with fifty-three figures, illustrating articles, some of which are skillfully colored. The second number begins with page 353 and closes with 626. It contains three plates with numerous figures. They contain articles from Remak, Meyer, Leyden, Frey, Nothnagel, Guttman, Westphal, etc.

In the next number of this journal we shall present a lecture delivered at Starling Medical College: An Analysis of the Human Mind, *i. e.* its Departments and Faculties, as a classification and diagnosis of insanity. This will be followed by one upon the Classification of Insanity, in which the various classifications are reviewed, whether of those who classify by causes, as Skae and Morel, or by symptoms, or supposed pathological conditions.

D. A. Morse, London Ohio

WANTED,

The following numbers of the old Ohio Medical and Surgical Journal: Vol. 7, No. 2; Vol. 5, Nos. 3 and 4; Vol. 4, Nos. 1 and 5. Fifty cents each will be paid for the above numbers, on application to Dr. J. H. Pooley, 117 East Broad street, Columbus, Ohio.

REPORTS OF SOCIETIES.

CENTRAL OHIO MEDICAL ASSOCIATION.

REPORTED BY OTTO FRANKENBERG, M.D., COLUMBUS, OHIO.

A stated meeting of this Association was held April 6, 1876.

Dr. Norman Gay was elected President *pro tem.*

Dr. Dunham, of Columbus, read a paper on Hysteria. He remarked that the etiology of this affection was obscure, inasmuch as the exact changes that take place in the nervous system are not known. As is well known, it most frequently occurs in females, not because it is always owing to derangement of the generative system, but also on account of their more highly impressible nervous system. In regard to treatment, the Doctor dwelt mainly upon the hygienic and psychological management of these cases. The mode of living should be changed; the more out-door life the better. A simple plan of treatment thoroughly carried out is the best. No definite line of treatment can be laid down as applicable to this disease beyond the hints referred to. Each case must be treated on its own merits.

Dr. Wirth said the subject was one of equal intricacy and importance. The greatest care should be exercised in searching for the possible cause, which perhaps may be more often found than in our indolence we are apt to imagine. He made the inquiry whether or not hysteria was more common among American women than among foreigners. Certainly the education of our women needed a change; it should be more adapted to improve the physical strength; it is too artificial; as a rule, more common sense and less straining after mere accomplishments would be a gain in every way. Sometimes young physicians were sorely puzzled to make the diagnosis of hysteria, but when one had been some time in practice he learned to recognize its features, even though he might not be able to describe them. It was among the plagues of a doctor's life. He would rather treat a fracture than a case of hysteria.

Dr. Hamilton, of Columbus, then presented tumors that he had removed, involving the female breast. The greater number of these were classed among the carcinomata. The Doctor said that he had operated forty-six times for the removal of cancer of the breast during his time of practice, and eight additional times for different causes. These operations did not always involve the removal of the entire gland. If this was not done, the operation was always a more troublesome and difficult one to do. On several occasions the amputation was done simply for relief, and to abate the horrible smell present in some cases, and not with any hope of prolonging life. At different times a second operation on the same patient was had, with results that he thought would justify the proceeding. Most of the cases presented the ordinary history of cancer which is so well known; and it would, therefore, be superfluous to give it in each case as related by the Doctor.

One remarkable case, however, is of sufficient interest to justify a more detailed account. An old lady of about sixty years of age, in whom the tumor was in existence for thirty years. Before the operation was permitted it had grown to an enormous size. She then consented to have it removed because it was in the way. The tumor was removed in this manner: It was raised off the pectoralis major by traction, a large amputing knife was used in transfixing it; cut out; then the knife was reversed, and the operation was completed in about forty seconds. This

patient made a good recovery. The conclusions the Doctor arrived at are that the operation should be performed in all suitable cases giving any chance of prolonging life or of relieving suffering, but should not be done where the disease is hereditary and the axillary glands are involved.

Another case of special interest was that of a woman who was the mother of four children. Soon after marriage one breast began to enlarge; during lactation became less in size. When the tumor was removed, it weighed six pounds, and had all the characteristics of a galactocele—milk, butter, and a cheesy substance was found on section.

CENTRAL OHIO MEDICAL ASSOCIATION.

A stated meeting was held May 4, 1876. Dr. Nourse, President, in the chair.

Dr. S. Loving read a paper on the art of prescribing, tracing the history of this art from the Egyptians down to the present time in a manner that does credit to this important subject, and, at the same time, shows that he has devoted considerable time and study to it, enabling him to handle it with a masterly grasp. The salient points of the paper were: 1. To write a legible hand. 2. Write names of the ingredients in Latin or English. 3. To be careful in using abbreviations, using only such as are perfectly understood. 4. To be careful in designating the quantity ordered. 5. The directions to the druggist and to the patient should always be written in English. The Doctor in his paper took exception to the common practice of prescribing patent medicine and secret nostrums as being entirely below the dignity of the profession.

Dr. D. A. Morse, of London, read a review of the opinions of Dr. Hammond and others on cerebral anæmia and hyperæmia, stating some facts that will assist in making the differential diagnosis between these two conditions. In a case of pneumonia that came under his notice, the patient complained of neuralgia, and was one of those cases that did not bear tonics well, but gave opium on the supposition the hyperæmia was present, and that the drug acted as a stimulant in producing contraction of the muscular walls of the vessels.

Dr. Wirth, of Columbus, read a paper on the non-identity of pseudo-membranous croup and diphtheria, taking the same side with those that are opposed to the opinion of their identity. The paper was a lengthy one, but written with great care. Evidently the Doctor was thoroughly imbued with its importance; for the facts advanced in support of his opinion were such as could not well be gainsaid, basing his theory upon pathological facts as taught by our best pathologists. He did not, however, deny that there were arrayed upon the other side some very good men, who were entitled to consideration.

Dr. Hamilton presented a fibroid tumor, in size about that of a healthy uterus, which had been really mistaken for an inverted uterus by the physician who had had charge of it. The Doctor found on examination that the tumor was attached by a pedicle to the os uteri. At a later date the patient was placed under ether for the purpose of having it removed, which was done by an ecraseur bent at an obtuse angle. The tumor could not be removed from the uterus without some difficulty.

Dr. Pooley said that he had seen a similar case in New York, which had been in his charge about one year, hemorrhages occurring now and then sufficiently alarming to necessitate an examination. The os was gradually dilated with sponge tent, when a tumor was discovered, fibroid in character, and of considerable size. The uterus was dragged down, near the vulva, the ecraseur was applied, and the tumor severed. Thus far the operation presented no very great difficulty. In order to remove it,

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it became necessary to cut it into three pieces, and nick the os in several places before this could be accomplished. The Doctor said if it became necessary to facilitate an operation, he would not hesitate to drag down the uterus. Very rarely, indeed, did bad results follow this procedure.

COLUMBUS ACADEMY OF MEDICINE.

COLUMBUS, OHIO, *May* 19, 1876.

Dr. Thompson, President, in the chair.

Dr. Pooley presented a pathological specimen, which had been sent by S. D. Turney, of Circleville, taken from an old lady of eighty years. The patient had been seen by Dr. Pooley in consultation, and at the time had made a diagnosis of cancer of the cardiac orifice of the stomach, basing this upon the facts that after swallowing any thing regurgitation always followed, and pain was complained of in this region. A stomach tube was also introduced into the œsophagus, which was also arrested, according to external measurement, at about the cardiac orifice. The specimen, however, disproves the diagnosis, at least in regard to the location of the stricture, this being from two to three inches above the cardia in the œsophagus. This obstruction was caused by a hard swelling, extending completely around the œsophagus, one inch across; the center was scooped out, irregularly, by an ulcerative process. Examined with a microscope, shows it to be epithelial cancer. Dr. Pooley believed in the feasibility of gastrostomy, and it would have been recommended if the diagnosis had not been made erroneously. There was also present fatty and calcareous degeneration of the aorta and several of the smaller branches.

Dr. Baldwin reported a case of Bright's disease, in which symptoms were general anasarca, respiration forty per minute, urine was diminished, containing hyaline cast, pus, and albumen; the skin had burst in different places, permitting oozing of the fluids.

Dr. Hamilton related a case, that of a woman, forty-six years of age; married, no children; tall and lean; descended from a healthy stock. Six years ago there appeared a small tumor over the seventh rib; three years ago this began to increase; and at the present time it measures eighteen inches in a horizontal direction by thirteen in a perpendicular one, and springing from a surface of about four inches, involving the twelfth, eleventh, tenth, ninth, eighth, and seventh ribs; hard and unyielding as bone. Upon the surface were a number of elevations, some sharp as needles, others blunt. The Doctor thinks that it could be nothing but an exostosis; no positive assertion could be made, as the patient would probably live to a good old age.

Dr. Hamilton said that on last November he performed an operation for the removal of cataract in an old lady of eighty years, and that some cortical substance had been inadvertently left behind. This commenced to swell soon, and threaten iritis; but, after remaining for four months, absorption began to take place, and at the present time all had been removed, and sight restored by aid of the proper glasses.

He also related the following: A man had received a compound fracture of the right-ankle joint, with great injury to the surrounding soft parts. In making an examination with the finger, found a loose bone, slightly attached. These were severed, and the bone removed; this proved to be the astragalus. The parts were then brought into apposition and kept so, as he had concluded to make the trial of saving the limb. A good recovery took place. He is now able to do ordinary work, showing but slight indications of weakening of the joint, with hopes that he will still further improve.

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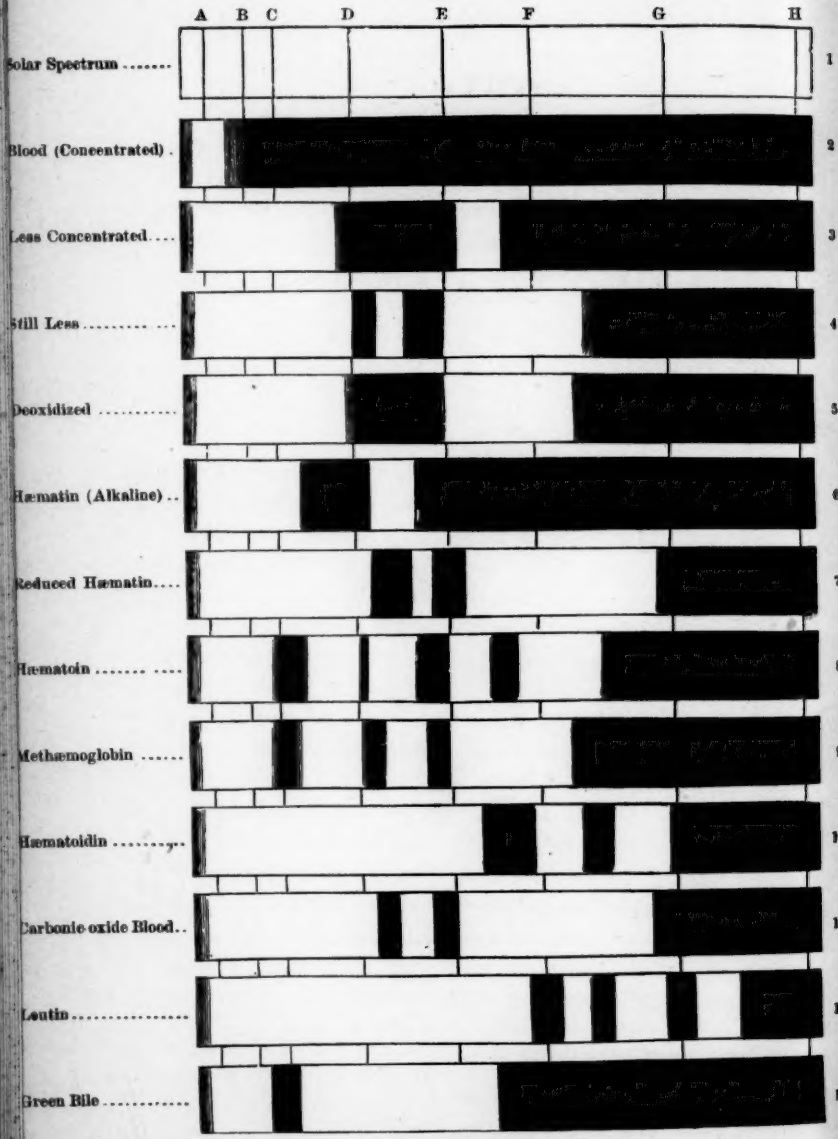

CHART OF SPECTRA.